

# ANZAHPE 2024



## CULTIVATING INNOVATION

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# ABSTRACT BOOK



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CULTIVATING INNOVATION

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**ABSTRACTS**

**PRE-CONFERENCE**

**MONDAY 1 JULY**



**ANZAHPE**

Australian & New Zealand  
Association for Health  
Professional Educators

### Attention hook! How to create a visual abstract for your publication

**Charlton A**<sup>1</sup>, Jowsey T<sup>2</sup>, Singleton <sup>1</sup>, Srinivasa <sup>1</sup>, Kenwright D<sup>3</sup>, Van Es S<sup>4</sup>

<sup>1</sup>*Faculty of Medical and Health Sciences, University of Auckland, ,* <sup>2</sup>*Faculty of Health Sciences & Medicine, Bond University,* <sup>3</sup>*Faculty of Medical and Health Sciences, University of Otago,* <sup>4</sup>*School of Biomedical Sciences, University of New South Wales*

#### **Introduction/Background**

A visual abstract is an infographic of a journal article's written abstract. It is a pictorial summary understood at a 30-second glance. Visual abstracts hook a viewer's attention, resulting in two to three times more article reads. Viewers understand faster and remember better when simple pictures are next to brief text. Browse examples of published visual abstracts on [social-media X #VisualAbstract](#), in a HPE journal [Journal of Graduate Medical Education](#), or a [newsletter](#). Nowadays, when your article is accepted, authors are often invited to submit a visual abstract for social media publicity. However, many authors in the health professions do not know how to create a compelling visual abstract and will miss out on communicating their research with impact.

#### **Method**

This is a hands-on, step-by-step, learning by doing, BYO device workshop. We will have many multidisciplinary circulating facilitators who will guide you to create your own AWESOME visual abstract! We begin with exploring evidence of visual abstract efficacy, copyright advice and hot tips on what makes a robust visual abstract. You will critique examples of published visual abstracts. You will receive and contribute to peer feedback to produce a compelling visual abstract for sharing. Participants must bring an internet-enabled laptop computer with Microsoft PowerPoint software. A computer mouse is preferable for quickly moving graphical elements. I-pads are not optimal for content creation. Mobile phones are not suitable for the creation of visual abstracts. Bring your own abstract or use the abstract provided.

#### **Discussion**

We will explore underpinning educational theories, research on the efficacy of visual abstracts, and extended applications such as a student learning activity and in workplace learning such as clinical guidelines.

# Learning Conversations in Health Professions Education: Making Sense of Feedback, Debriefing and Coaching

**Eppich W**<sup>1</sup>, Nestel D<sup>1,2</sup>, Oliver N<sup>3</sup>, Molloy E<sup>1</sup>

<sup>1</sup>University of Melbourne, <sup>2</sup>Monash University, <sup>3</sup>University of Canberra

## Introduction/Background

Health professions educators, clinical supervisors, and trainees engage in a variety of conversations with 'learning' and 'performance improvement' as an explicit intention. Despite the vital role of these learning conversations<sup>1</sup>, both clinical educators and trainees may not to engage effectively.

Facilitated feedback, healthcare debriefing in simulation or clinical settings, and coaching conversations share similar principles amongst several distinguishing characteristics. Cross-cutting principles that contribute to effective learning conversations include psychological safety, a growth mindset, and effective questions to promote reflection. Whereas feedback and debriefing may often focus on past concrete experiential learning encounters with a tendential emphasis on error and improvement, coaching conversations are ideally strength-based, explore solutions, and provoke concrete future action. Importantly, these different genres of learning conversations can be meaningfully integrated, such as the R2C2 model of facilitated performance feedback<sup>2</sup>.

The aim of the workshop is to explore similarities and differences among these forms of explicit learning conversations and help educators in their approach to facilitating them more effectively. After the session, workshop attendees will be able to:

- (a) Compare and contrast various forms of explicit learning conversations (feedback, debriefing, and coaching).
- (b) Apply cross-cutting principles to all forms of learning conversations.
- (c) Identify opportunities to enhance your personal approach to learning conversations.

## References

1. Tavares W, Eppich W, Cheng A, Miller S, Teunissen PW, Watling CJ, et al. Learning Conversations: An Analysis of the Theoretical Roots and Their Manifestations of Feedback and Debriefing in Medical Education. *Academic medicine*. 2020;95:1020–5.
2. Sargeant J, Lockyer J, Mann K, Holmboe E, Silver I, Armson H, et al. Facilitated Reflective Performance Feedback: Developing an Evidence- and Theory-Based Model That Builds Relationship, Explores Reactions and Content, and Coaches for Performance Change (R2C2). *Academic Medicine*. 2015;90:1698–706.

## Outline of workshop activities

- (a) 10 min: Welcome, overview of session, setting of group norms for collaboration during the session.
- (b) 20 min: Through small group discussion, participants will explore their view of the similarities and differences between feedback/debriefing/coaching. We will use an internet-based serve (e.g. WOOCCLAP) to visualize participants responses and facilitate large group discussion.
- (c) 20 min: We will engage in an interactive video review of representative examples feedback and debriefing conversations, including success factors and challenges
- (d) 15 min: Next, we will engage participants in a brief overview of coaching in HPE with short video review of a short coaching encounter followed by group discussion.
- (e) 15 min: We will facilitate a discussion about concrete steps to enhance your personal approach to learning conversations (small group discussion followed by large group discussion).
- (f) 10 min: Wrap up and take-aways.

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How educators can preserve empathetic, human, health care in an increasingly technological age: Using arts and humanities in health professional education.

**Darbyshire P<sup>1</sup>, Smith-han K<sup>1</sup>**

<sup>1</sup>The University of Western Australia

### **Introduction/Background**

In an age of the technologizing of healthcare practice and systems, Health Professionals are increasingly concerned that the technological aspects of healthcare practice may overshadow humanistic elements essential to healthcare. Arts and humanities provide much of the context and meaning necessary to relate education and practice to 'real people' and to their lived experiences of health, illness, disability and dying. Novels, short stories, film, poetry, painting, photography and more can be a rich source of information, but more importantly, of illustration of ambiguity and life's complexity – aligning with the challenges of providing proficient person-centred care. Depictions of disease and illness and professional caring which are found in arts and humanities offer powerful, sensitive, articulate and real explanations of the human condition. Such studies can make a vital contribution to health professionals' overall "ways of knowing" which cannot be developed solely through the assimilation of factual material.

### **Purpose and Outcomes**

The workshop is suitable for educators of any health profession. This session will focus on: how using arts and humanities can promote teaching and learning that creates learning based on fairness and respect and enable teachers and students to jointly discover creative approaches to the study of human experience and related person-centred health professional practices; how using arts and humanities can develop health professionals' intuitive, perceptive and relational understandings; how using arts and humanities can develop analytical, interpretive, critical skills and encourage the sharing of ideas and insights through respectful scholarly dialogue; use arts and humanities to illustrate and illuminate the complexity of human experience and responses to health, illness, disease and disability and the most appropriate health care approaches.

### **Issues for exploration**

The central issue that this workshop will explore is how health humanities approaches can be used to develop and preserve empathetic and person-centred health professional practice.

### **Outline of workshop activities**

The workshop will be dialogical and interactive in nature. Participants will interact with different arts and humanities mediums and activities and engage in respectful dialogic discussion where sharing and listening to a variety of perspectives and experiences shapes the learning for the participants. This is NOT an English Literature or Art History session. Please do not be 'put-off' because you feel that you 'don't know anything about art, poetry or literature'. We will keep a strong focus on health care and relate our readings and interpretations to the real world of people's experiences and how health professionals can best provide care. All you need to bring is your enthusiasm, experiences and perspectives!

### ProFESS: Remediating professional behaviour lapses through empowering students in behavioural change and strengthening standards

**Clearihan L**<sup>1</sup>

<sup>1</sup>*Monash University*

#### **Introduction/Background**

Professional behaviour lapses are complex and challenging to assess and manage, with best practice evidence lacking for effective remediation<sup>(1)</sup>. These challenges are tackled at Monash University using the ProFESS framework and Fitness for Practice model, an innovative approach for identifying, assessing and managing professional behaviour lapses through behaviour change focussed remediation strategies. This workshop's aim is to share the ProFESS approach and stimulate discussion about how this student centred approach can strengthen a student's professional identity formation.

#### **Methods**

A program logic model underpinned ProFESS's development, evolving over five years of literature reviews, iterative staff and student feedback and piloting in 2021 before implementation in 2022. It is a non-escalation approach with each of four interlocking quadrants targeting the type of remediation required based on the nature of the professional behaviour lapse and its seriousness. The process assists students meet fitness for practice course requirements and professional standards while becoming active agents in their learning. In keeping with transformative learning techniques this workshop enables participants to experience the ProFESS approach and provide feedback.

#### **Results/Evaluation**

29 multidisciplinary degree programs in the faculty of medicine, nursing and health sciences use ProFESS. A recent survey of academic's attitudes and experiences of ProFESS, indicated it is transparent, helpful to support students and manage professional behaviour lapses, provides a safe process for difficult conversations and applies in multiple contexts and disciplines. Further evaluation will incorporate the student perspective. Workshop feedback provides a wider lens on the process and its remediation approach, and forms part of a larger evaluation study.

#### **Discussion**

In gaining insight into the ProFESS approach, participants are encouraged to reflect on, and discuss whether this model could assist struggling students develop skills and strategies for navigating personal difficulties, strengthen their professional identity formation and deepen their understanding of professionalism's complexity, within their context.

#### **References**

1. Kecskes Z, Bandler L, Boylan A, Clearihan L, Craig H, D'Souza K, et al. Professionalism and professional identity of our future doctors. Medical Deans of Australia and New Zealand; 2021 February.

### Evaluating Community of Practice using Value Creation Cycle Framework

**Ghani M**<sup>1,2,3</sup>, **Cooper-loelu P**<sup>4</sup>, **Jowsey T**<sup>5</sup>

<sup>1</sup>College Of Intensive Care Medicine Of ANZ, <sup>2</sup>University of Melbourne, <sup>3</sup>St Vincent's Hospital Melbourne, <sup>4</sup>University of Auckland, <sup>5</sup>Bond University

#### Introduction/Background

A community of practice (CoP) is a group of people who share a common interest, concern, or skillset and come together to fulfil individual and group goal. Strong CoPs are one way to support clinicians within clinical teaching contexts to develop the educator aspect of their professional identity. However, evaluating CoPs is challenging because many evaluation frameworks are ill-suited for measuring holistic impact. We successfully

In this workshop, participants will learn about CoPs, as well as a successful evaluation strategy for CoPs within clinical contexts<sup>1</sup>. The strategy is called a Value-Creation Framework<sup>2</sup>.

#### Methods

We evaluated an international 12-month program that supports widely distributed critical care health professional educators through a virtual CoP (vCoP). We used a mixed-methods approach to evaluation, including an anonymous survey and semi-structured interviews. Themes from data sources were identified using the Value-Creation Framework as the common thread.

#### Results/Evaluation

27 of 66 participants responded to the survey, and 15 participated in interviews. Positive and negative indicators of value creation were extracted and organised according to the framework's eight value cycles. Framework analysis made value-creation and potential flow-on effects in one value-creation cycle to another visible, offering insight into relationships. Using the Value-Creation Framework to evaluate the critical care faculty development program brings to bear the complexity of boundary-crossing health professional faculty development for critical care educators. This is the first study that uses the Value-Creation Framework to evaluate vCoP.

#### Discussion

The Value-Creation Framework can be a valuable tool for evaluating a vCoP associated with faculty development programs. This study outlines an evaluation blueprint for practitioners who want to think holistically about the effectiveness of educational interventions involving CoP.

#### References

1. Ghani M, Cooper-loelu P, Jowsey T. (2024). Measuring the added value of virtual communities of practice for developing the educator role of critical care professionals: BMJ Open Quality;13:e002556. doi: 10.1136/bmjopen-2023-002556
2. Wenger-Trayner, E., Wenger, E., & Wenger-Trayner, B. (2020). Learning to make a difference: Value creation in social learning spaces. Cambridge university press.

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### Enhancing mental health education: crafting high-fidelity simulations through character-based improvisation.

**Jureidini J<sup>1</sup>, Dunbar M<sup>1</sup>, Cure E, Marchand R<sup>1</sup>**

<sup>1</sup>*University Of Adelaide*

#### **Introduction/Background**

Patient simulations have been integral to health education for numerous years. However, detailed, high-fidelity simulations depicting the social and emotional challenges faced by families are comparatively rare.

For more than thirteen years, PMHTU (Paediatric Mental Health Training Unit) in the School of Medicine at the University of Adelaide, through its iLab program, has provided senior medical students with practical, simulation-based experiences. These simulations are designed to engage children and families confronting social and emotional issues, offering valuable hands-on learning.

We employ professional and semi-professional youth actors and prepare them for this simulation work using the Character-Based Improvisation Process (CBI) to craft authentic, precise and detailed characters. Utilizing CBI, actors can access a broad spectrum of tendencies, defences and motivations in their performances. The resulting simulations generate a vivid sense of reality, fostering deeper emotional engagement from students.

#### **Methods**

This workshop, tailored for health educators, builds on the established instructional techniques of PMHTU. It introduces advanced methods for creating lifelike mental health simulations.

Our primary approach involves developing comprehensive, psychologically rich, and relationally complex character narratives. We will explore how these narratives facilitate actor training through CBI techniques.

Participants will learn to transform exemplary clinical scenarios into nuanced, multi-layered teaching vignettes and to evaluate the advantages, challenges, and varied applications of these methodologies in mental health education and beyond.

#### **Results/Evaluation**

The workshop aims to impart to educators vital skills in creating complex, relationally-focused simulations to augment the engagement and authenticity of mental health training.

#### **Discussion**

The high-fidelity simulations depicting the social and emotional challenges faced by families will be explored through this workshop: participants will gain exposure to a technique potentially beneficial in their respective professional settings.

#### **Outline of Workshop Activities**

The workshop will cover the preparation and production of simulation vignettes, including: the process of generating of narratives out of clinical experience (without compromising confidentiality); the construction of characters with defined behavioural and mental states; the creation of a simulated family and the relevant dynamics; casting procedures; character rendering using CBI; and the calibration of simulation performances, demonstrating how to maintain character consistency over time.

A key feature of the workshop will be the participation of Dr. Robert Marchand, a renowned CBI expert and screen director. Dr. Marchand will offer live demonstrations to illustrate actor calibration and CBI techniques.

Participants will have an opportunity to test the suitability of these techniques in their own teaching environment and to begin the process of vignette development.

### Reviewing and creating entrustable professional activities (EPAs) as a tool for learning

**Penman M**<sup>1,2</sup>, Hunter S<sup>1</sup>, Brentnall J<sup>2</sup>

<sup>1</sup>*Curtin University*, <sup>2</sup>*The University of Sydney*

#### Introduction

Allied health professions generally include short clinical placements early in their degrees. These placements are intended to provide students with opportunities to consolidate knowledge and develop professional identity and skills<sup>1</sup>. However, clinical educators may have difficulty enabling the achievement of learning outcomes as articulated by various universities, while considering varied student abilities and prioritising client safety. Students report often being situated as observers during placements, potentially impacting on their achievement of the expected learning outcomes.

We addressed this challenge in early-year occupational therapy, physiotherapy and speech pathology placements by developing and evaluating the application of six Entrustable Professional Activities (EPAs)<sup>2</sup>. This workshop aims to familiarise participants with the use of EPAs for learning and provide an experience of creating an EPA relevant to their placement context.

#### Methods

Drawing on the design process and evaluative findings of our research, this workshop will explore the application of EPAs for learning through entrustment, rather than assessment. Participants will identify potential enablers and barriers to the use of EPAs in their contexts, informed by the research. Finally, participants will draft an EPA tailored to their learning opportunities, assessment tools and/or accreditation requirements.

#### Results/Evaluation

At the end of this workshop, participants will be prepared to craft EPAs relevant to their contexts. With a new perspective on EPAs as a tool for learning, participants will be positioned to assist educators to entrust students in active learning through activities relevant to both the practice and course contexts.

#### Discussion

While EPAs were initially developed as assessment tools in medical education, this workshop will demonstrate their value to guide entrustment decisions that balance active learning and client safety priorities. Applied consistently, EPAs enhance educator productivity while enabling students to make meaningful contributions to the workplace, supporting their growing professional identity and professional capabilities.

#### References

1. Honey, A., Penman, M. 'You actually see what occupational therapists do in real life': Outcomes and critical features of first-year practice education placements. *Br J Occup Ther.* 2020;83(1): 638-647. [doi.org/10.1177/0308022620920535](https://doi.org/10.1177/0308022620920535)
2. ten Cate O, Taylor D. The recommended description of an entrustable professional activity (AMEE guide no. 140). *Med Teach.* 2020;43(10): 1106-1114. doi:10.1080/0142159X.2020.1838465.

## Workshop 9

### Writing for Publication FoHPE Editorial Board

Presenter/s: The FoHPE Editor and Associate Editors

#### Introduction

This workshop is part of the regular program at ANZAHPE conferences. The Association is keen to assist its members in developing academic writing skills. In particular it seeks to encourage and upskill early career academics. The workshop is led by Editorial Board members of the Association's journal, *Focus on Health Professional Education* (FoHPE).

#### Aims

- Assist participants in getting their message across in publications, by working on small samples of text
- Provide feedback and advice on an issue related to a particular paper
- Learn about the reviewing and publishing process, using FoHPE as a case example

#### Activities

The workshop will be focused on the needs of the participants. The participants will be required to bring along a piece of their own writing to the workshop, typically a title and abstract for work they hope to publish. A mixture of short presentations and small group work will be used.

**Facilitators:** The FoHPE Editor and Associate Editors

**Intended participants:** This workshop is intended for novice writers/researchers.

This includes those who are currently writing for publication for the first time as well as those who have already had a small number of papers published.

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May I walk alongside you?: Learning how to build a person-centred health curriculum by applying mindfulness, affective reflection and simulated learning.

**CHAN K<sup>1</sup>, Humphreys L<sup>1</sup>**, Nolan M<sup>1</sup>

<sup>1</sup>*Griffith University*

### **Introduction/Background**

The Griffith University Doctor of Medicine (MD) Communication Skills and History Taking Program has over 16 years of experience in teaching communication skills to health students with a strong focus on patient narrative and lived experience. This approach resonates with the latest Australia Medical Council Accreditation guidelines highlighting the importance of person-centred care (1).

The program embeds contemplative skills to support students to consider the value-laden aspects of their profession as they “become” doctors. This unique curriculum model (coined as MaRIS) engages students in Mindfulness practice and affective Reflection, whilst being deliberately and progressively exposed to emotionally Impactive (simulated) clinical experiences delivered in a Supportive and safe environment (2). The trauma-informed approach of MaRIS, actively builds the psychological safety for students to engage in higher order reflection without sacrificing the discomfort pedagogy underpinning the model.

Research has shown the MaRIS curriculum design to facilitate the foundations for our students to build the human capabilities and personal resilience required for person-centred practice, evidenced quantitatively by a statistically significant increase in self-assessed communication competence, empathy and resilience after eight months of training (2).

### **Method**

Participants will be introduced to the concepts of contemplative pedagogy in the context of health education and have an opportunity to directly experience the key elements of MaRIS in an interactive supportive environment. After identifying areas in their practice/curriculum that have the potential to include contemplative skills, a facilitated brainstorming session will allow participants to develop an individualised plan for embedding MaRIS methodologies into their own learning and teaching settings. The scope for forming a community of practice will be explored.

### **Evaluation**

Short online anonymous survey of workshop experience.

### **Discussion**

We aim to produce an opinion piece after the discussion to share the insight and conclusion of the discussion with a wider audience.

### **References**

Australia Medical Council Limited (2023). Standards for Assessment and Accreditation of Primary Medical Programs. [https://www.amc.org.au/wpcontent/uploads/2023/08/AMC-Medical\\_School\\_Standards-FINAL.pdf](https://www.amc.org.au/wpcontent/uploads/2023/08/AMC-Medical_School_Standards-FINAL.pdf) Kwong D. Chan, Linda Humphreys, Amary Mey, Carissa Holland, Cathy Wu & Gary D. Rogers (2020) Beyond communication training: The MaRIS model for developing medical students' human capabilities and personal resilience, *Medical Teacher*, 42:2, 187-195, DOI: 10.1080/0142159X.2019.1670340

### Who Are You? Thriving as a Health Professions Educator by Aligning the Personal, Social, and Structural Aspects of Your Professional Identity

**Osheroff N**<sup>1</sup>, Dahlman K<sup>2</sup>, Findyartini A<sup>3</sup>, Eley D<sup>4</sup>

<sup>1</sup>Vanderbilt University School of Medicine, <sup>2</sup>Vanderbilt University Medical Center, <sup>3</sup>Universitas Indonesia, <sup>4</sup>University of Queensland

#### Background

Due to changes in health professions curricula and institutional expectations over the past decade, there has been a seismic shift away from the traditional health professions teacher, whose duties were often limited to the role of lecturer or course organizer, to a professional educator with a multidimensional skill set. As a result, it is important for health professions educators to develop modern educator skills and qualities such as educational leadership, curriculum design/implementation, mentorship and coaching, competency-based assessment, evidence-based teaching/facilitation, and educational scholarship. This workshop, which is organized by the International Association of Medical Science Educators (IAMSE), will explore how the expansion of educator roles has had a profound effect on the professional identity of health professions educators and how personal, social, and structural factors related to professional identity formation impact the ability of faculty to thrive as resilient and adaptive health professions educators.

#### Methods

This workshop will explore the shift from health professions teachers to educators and how that shift has impacted the professional identity of faculty members. The ideas to be explored are based on well-established changes in educational roles that accompany the shift to integrated curricula and increased active learning as well as two recent qualitative descriptive studies in Non-Western and Western settings that explore professional identity formation in basic science and clinical educators (1, 2).

#### Results

Results provide strong evidence that the professional identity formation of basic science and clinical health professions educators is shaped by contextual key socialization factors that can be categorized as personal, social, and structural in nature.

#### Discussion

This workshop will explore how changes in the roles of health professions educators have affected their professional identities and how personal, social, and structural factors can be aligned to support faculty to thrive as health professions educators.

#### References:

1. Wahid *et al.* (2021) *Medical Teacher* **43**, 868-873. "Professional Identity Formation of Medical Teachers in a Non-Western Setting."
2. Brooks *et al.* (2023) *Acad. Med.* **98(11S)**, S14-S24. "Professional Identity Formation of Basic Science Medical Educators: A Qualitative Study of Identity Supports and Threats."

#### Outline of Workshop Activities

Part 1: Exploring roles.

1. Introductions followed by an interactive large group session to explore how roles of health professions educators have changed because of altered curricula and institutional expectations. (20 minutes)

Part 2: Exploring professional identity.

1. An interactive large group session to explore pathways into health professions education and to consider how professional identity formation is impacted by faculty roles and personal, social, and structural factors. (20 minutes)
2. Participants identify factors that supported their pathways into health professions education and the formation of their professional identities. (20 minutes)
3. Participants discuss challenges and strategies to develop their professional identities and how programs/policies can be leveraged to allow them to thrive as health professions educators. (20 minutes)
4. Closure. (10 minutes)

Following this interactive workshop, participants will be able to:

1. Describe their professional identity and how it has changed because of altered roles and institutional expectations.
2. Define the roles of modern health professions educators.
3. Describe factors that allow faculty to develop strong professional identities and thrive as health professions educators.

## Workshop 12

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### Engaging and Collaborating with Generative AI in Innovating Health Professions Education

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<sup>1</sup>*Monash University Malaysia*

ANZAHPE 2024\_gAI Workshop\_Abstract\_WeeMingLau\_AndrewTAGG(F).

#### **Background:**

Generative artificial intelligence (gAI) involves large language models that transform human resources (input) to new data with near-similar characteristics (output).

Generative Artificial Intelligence (gAI) stormed into the educational paradigm towards the end of the Covid19 pandemic. ChatGPT took centre-stage as the pioneer with rapid development of the work that it can do with introduction of plug in such as Dalle. Since then, many AI tools have been jumped on the bandwagon, some of these are Midjourney, Dall-E, Bard, Bing AI, ChatPDF, Consensus, etc.

It is important that all stakeholders are aware of gAI, so that we can work in a constructive manner in guiding our students. There have been mixed feelings on using gAI in academia. Some found them highly efficient and saves valuable time for other equally important activities. Others are concerned that these tools will take away jobs and widened the gap between the haves and have-nots. As long as we are aware on the purpose that we are employing gAI and their pros, cons and the ethics when using these tools, we are fine.

In this 90-minute workshop, we will take participants on an interactive journey to explore the use of gAI in health professions education. We will have a hands-on session using ChatGPT, and other AI tools for teaching and research.

#### **Purpose and outcomes:**

This workshop aims to allow participants to

- Gain knowledge on some types of AI tools that can be used for teaching, learning and research
- Discuss the pros and cons, of these AI tools.
- Discuss the ethical use of gAI
- Practice with gAI applications.

#### **Issues for exploration or Questions for discussion:**

Key areas for discussion during this workshop include:

- gAI in health professions education
- Benefits
- Challenges
- Ethical issues

#### **Outline of workshop activities (200 words)**

Registered participants will be invited to complete an online form (to seek information on their work, and experience in using gAI in academia (teaching, learning, assessment, research etc). In addition, participants will be provided with an article for pre-reading before participating the workshop.

**Ice breaking** and creation of 5-6 small groups (each with 5-6 participants)– 5 mins

**Brief overview of gAI-** its development, the extent of its use, and the tools available for use – 10 mins

**Group work** -Participants to discuss in small groups on their prior experience in using gAI (if they had used this before) or what they wished to learn when using gAI tools, including the pros, cons and ethical consideration when using gAI. – 15 mins

**Group presentation 1** at the completion of the above discussion – 15 mins

**Hand on session** in using CHatGPT and Dalle, how to write proper prompts. Specific tasks will be given to the participants. – 20 mins

**Group Presentation 2** on the hands-on activity – 15 mins

**Recap and take-home messages** – 10 min

**Total time** = 90 mins

**Level:** Introductory-Intermediate

**Maximum number of participants** – 30

**Who can participate-** anyone who is interested in using gAI in teaching, learning, assessment, and research (students, academics, clinicians, administrators) Key words: gAI tools, teaching, learning, assessment, and research.

## Workshop 13

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### FoHPE Reviewing Manuscripts for Publication

Scott K

#### Reviewing Manuscripts for Publication Workshop

##### Introduction

This workshop is part of the regular programme at ANZAHPE conferences. ANZAHPE is keen to develop the skills of reviewers for *Focus on Health Professional Education (FoHPE)* and other health professional education journals.

This workshop is targeted at participants who either wish to become reviewers or who have already provided some reviews and would like some additional guidance for that role.

##### Aims:

Equipping and encouraging novice academics to engage with the task of reviewing manuscripts for publication.

##### Intended outcomes

1. Develop and improve reviewing skills
2. Gain an understanding of the publication process from submission to publication, with a particular emphasis on the role of the peer review.

##### Activities

Through group discussion, the participants and facilitators will share their experiences of reviewing and draw out some general principles.

The supplied sample manuscript/writing will be examined critically by participants, working in sub-groups facilitated by members of the FoHPE Editorial Board. A summary of key issues will be presented in whole group discussion.

FoHPE's reviewing process will be used as an exemplar. A copy of the FoHPE reviewer guidelines will be provided.

**Facilitators:** The Editor and Associate Editors of the FoHPE Editorial Board.

**Intended participants:** This workshop is intended for novice reviewers.

This would include those who have never reviewed and those who have limited experience with reviewing for publication.

**Numbers:** Maximum 15 participants

### Facilitating Professional Learning Communities to improve the clinical supervision of health professional students in the workplace environment

Lysk J<sup>1</sup>, Clement T<sup>1</sup>, Molloy L, Shea R

<sup>1</sup>University Of Melbourne

#### Introduction/Background

Facilitating small groups is challenging because it requires a continuous evaluation and response to an unfolding situation in order to support participants' learning. This workshop focuses primarily on the facilitation of Professional Learning Communities (PLC) for clinical educators, a specific type of small group that brings the same group of clinical educators together, over time, who share an interest in exploring their educator role and their teaching practices. The PLC supports learning through collaborative inquiry, using authentic 'artefacts of (participants') practice' as stimuli for discussion. As such, PLCs require a more 'content neutral' facilitator (i.e., one that is not responsible for delivering pre-determined content), who gives primacy to the participants' concerns, so that they can explore their own views and develop solutions for themselves.

The broad aims of this workshop are to use an inquiry-based stance to explore participants' curiosities about this form of professional development, examine participants' teaching and learning mindset, and utilise participants' insights about facilitation to influence future practice.

#### Methods

The workshop content draws on academic literature, the workshop leaders' experiences of facilitating uni- and inter-professional PLCs, and research into PLCs that investigated their overall effectiveness, including facilitators' in-the-moment practices (Clement et al., 2023; Clement et al., 2020).

#### Results/Evaluation

The PLC facilitator is central to enabling effective learning experiences and requires a facilitator who is attuned to the underpinning situative theoretical perspective and behaves congruently, activating learning rather than trying to teach to fixed outcomes.

#### Discussion

Effective facilitation of PLCs requires preparation for the facilitator role, so that facilitators nurture reflective dialogue and enable small groups to be self-directed in their learning. This workshop may be of interest to people with an interest in facilitation, clinical education and/or designers, deliverers, or recipients of professional development for clinical educators.

#### References

- Clement, T., Howard, D., Lyon, E., & Molloy, E. (2023). Using a logic model to evaluate a novel video-based professional development activity for general practice clinical educators. *Teacher Development*, 27(2), 172-202.
- Clement, T., Howard, D., Lyon, E., Silverman, J., & Molloy, E. (2020). Video-triggered professional learning for general practice trainers: using the 'cauldron of practice' to explore teaching and learning. *Education for Primary Care*, 31(2), 112-118.

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### Nurturing deep learning in health professional education with Lego Serious Play

**Odgers-jewell K**<sup>1,2</sup>, Trethewey A<sup>1</sup>, **Pecar K**<sup>3</sup>

<sup>1</sup>Bond University, <sup>2</sup>Northern New South Wales Local Health District, <sup>3</sup>Flinders University, SA

#### Introduction/Background

Lego Serious Play (LSP) is an innovative approach to learning and teaching that transcends traditional barriers to communication and engagement and has broad applicability, including in higher education. Rooted in constructivist principles and powered by the wonder of questions, LSP offers a unique inquiry-based framework to facilitate deep learning and engagement. The LSP method leverages experiential and active learning pedagogies and embodied cognition to provide deep, holistic learning experiences that empower learners to actively construct knowledge, collaborate effectively and navigate complexity with creativity and insight. LSP's generative process offers a systematic and three-dimensional approach that facilitates deep understanding, builds connections and relationships, and uncovers insights.<sup>1</sup> This in-progress project aims to explore the benefits and challenges of LSP in health professional education.

#### Methods

In the LSP method, participants are encouraged to 'think with their hands and listen with their eyes', leveraging the hand-mind connection to increase neural activity to achieve cognitive, emotional, and social engagement.<sup>1</sup> Undergraduate and postgraduate students participating in LSP sessions across any health discipline will be invited to complete a survey which explores their experiences, and ways in which LSP enhances learning. Additionally, the researchers will keep reflective journals to document observations and reflections on the advantages and constraints of utilising LSP in higher education.

#### Results/Evaluation

Data will be collected using researcher reflective journals and self-reported student survey items (Likert scale and open-ended questions) which explore student engagement, student satisfaction, the benefits and challenges of LSP, and the utility of LSP as a reflective tool.

#### Discussion

LSP further harnesses the transformational power of play, metaphorical thinking, and collaborative storytelling to nurture dynamic and empathetic learning communities that embrace diverse perspectives and cultivate shared understanding.<sup>1</sup> LSP is an innovative approach to health professional education that has been shown to support reflective processes, introspection, formation of professional identity and development of resilience.<sup>2</sup>

#### References

1. Kristiansen, P., & Rasmussen, R. (2014). *Building a better business using the Lego serious play method*. John Wiley & Sons.
2. Warburton, T., Brown, J., & Sandars, J. (2022). The use of LEGO® SERIOUS PLAY® within nurse education: A scoping review. *Nurse Education Today*, 118, 105528.

#### Outline of workshop activities

This workshop invites participants to experience firsthand LSP's transformative potential to engage diverse groups of learners, propelling them into the realm of curiosity-driven exploration, critical thinking, and collaborative innovation. Through guided activities and reflective discussions, participants will learn how to transform teaching using LSP's theoretical foundations and practical applications.

We will begin the session by introducing LSP as a small group method to engage students and transform thinking (15 mins). We will then enable participants to experience the LSP process by constructing models in response to questions posed by the facilitators, sharing these models with the group, and reflecting on the process and their learnings. (60 mins). We will finish the session with a discussion on potential next steps, sharing examples of LSP in health professional education, and supporting participants to consider how they could integrate LSP into their teaching to enable health professional students to creatively explore and reflect on their existing knowledge, develop new ideas and perspectives (15 mins).

We will provide participants with an individual Exploration Lego kit to take home which will include the Lego bricks required for the activities, a booklet on using LSP in higher education, and reflection cards.

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### Psychological safety in our learning environments: A world café approach.

**Freeman K<sup>1</sup>, Phillips B<sup>2</sup>, Szabo R<sup>3</sup>**

<sup>1</sup>The Rural Clinical School of WA, <sup>2</sup>The University of Western Australia, <sup>3</sup>The University of Melbourne

#### **Introduction/Background**

Providing psychologically safe environments for our learners allows all parties to express themselves authentically while reducing work-related stress and improving wellbeing. By creating a supportive learning space, educators facilitate increased engagement and learning.(1) Creating a psychologically safe learning environments (PSLE) requires a deliberate and concerted effort from educators. By creating PSLEs, educators can foster a culture of respect, support, and collaboration that promotes the holistic development of students and prepares them for success in their academic and professional lives. This interactive workshop will explore strategies for facilitating the creation of PSLEs.

#### **Methods**

The world café approach is built on the assumption that the challenges surrounding psychological safety in our learning environments can be met by the collective experience, knowledge, and creativity inherent in health professional educators from all career levels. With careful facilitation, illuminations and insights circulate, deepen and connect to create new knowledge.(2) This method focuses the purpose of the participant on the challenges related to the creation of PSLEs and uses dynamic conversations as a process to raise critical issues and develop effective strategies using collective wisdom.

#### **Results/Evaluation**

Workshop participants will discuss the importance of psychological safety in their teaching activities and develop strategies that they can implement to create psychologically safe learning environments for both educator and learners.

#### **Discussion**

While educators value the concept of PSLE, there is often some hesitancy around how this can be achieved. Engaging educators in facilitated, scaffolded discussions on barriers and enablers to the creation of PSLE, generates a range of approaches which can be utilised in a variety of teaching settings.

#### **References**

1. Hardie P, O'Donovan R, Jarvis S, Redmond C. Key tips to providing a psychologically safe learning environment in the clinical setting. BMC Med Educ. 2022;22(1):1–816.
2. The World Café Community Foundation [Internet]. El Cerrito CA: 2024. Resources [cited 2024 Jan 30]. Available from: <https://theworldcafe.com/key-concepts-resources/>

# Masterclass 1

## AMEE Essential Skills in Health Professions Education Leadership and Management (ESMELead) - A Masterclass

### Course Summary

The ESMELead Masterclass introduces key aspects of leadership and management for health professions educators who wish to develop a deeper understanding of leadership and management theory so they can improve their leadership skills and approaches to be more effective. The half-day workshop is theory informed, practice driven, context specific, highly interactive, supportive and fun.

**Who should participate in this course:** This course is for anyone (at any level) involved in health professions education who wants to learn more about leadership and management in health professions' education (in the academic or clinical setting) and explore the evidence base to help them become more effective leaders, managers and followers.

### Course faculty:

**Professor Kirsty Forrest** MBChB, BSc Hons, FRCA FAcadMed, MMed, FANZCA, Professor of Medical Education and Dena of Medicine Bond University, Gold Coast, Australia. Executive Member and Treasurer of the Medical Deans of Australia and New Zealand (MDANZ) and Chair of the Medical Education Collaborative Committee.

**Associate Professor Jo Bishop BSc (Hons), PhD, PGCertEd** is the current ANZAHPE president, Head of Curriculum for the Bond Medical Program within the Faculty Health Sciences and Medicine Bond University, Gold Coast, Australia and Chair of the Student Staff Health committee, Medical Deans of Australia and New Zealand (MDANZ)

### Learning outcomes

Through participating in the half day masterclass, delegates will be able to:

- Demonstrate understanding of leadership in contemporary health professions education
- Define key concepts relating to educational leadership, management and followership
- Explore strategies for leading and managing change
- Apply this learning to their own practice and context

### Course Format:

The curriculum is organised as follows:

**Synchronous Masterclass:** The course will be delivered as a half-day masterclass for face-to conference delegates. The course language is English, but the pace will be suitable for participants whose first language is not English. All participants will receive a Certificate of Attendance

Participants who wish to will be able to sign up at a discounted rate to the full online ESME Lead course which includes additional live online teaching sessions, access to a bank of online resources, and an assessment which leads to the award of the AMEE-ESME Certificate in Leadership.

## Masterclass 2

### AMEE Essential Skills in Wellness - A Masterclass

#### Course Summary

Educators need to maintain their own wellbeing, and for those who might lead organizational change, to ensure that their academic and clinical communities can thrive. By sharing their experiences and working together to find solutions with feedback from course faculty, participants can collectively enable the much needed and innovative individual and systemic change that is essential to make wellbeing a core dimension across the entire health professions' education and healthcare continuum. Who should participate in this course: The course will be of interest to anyone interested in supporting learner and faculty wellbeing in health professions' education and healthcare.

#### Course faculty:

**Professor Kirsty Forrest** MBCHB, BSc Hons, FRCA FAcadMed, MMed, FANZCA, Professor of Medical Education and Dena of Medicine Bond University, Gold Coast, Australia. Executive Member and Treasurer of the Medical Deans of Australia and New Zealand (MDANZ) and Chair of the Medical Education Collaborative Committee.

**Associate Professor Jo Bishop BSc (Hons), PhD, PGCertEd** is the current ANZAHPE president, Head of Curriculum for the Bond Medical Program within the Faculty Health Sciences and Medicine Bond University, Gold Coast, Australia and Chair of the Student Staff Health committee, Medical Deans of Australia and New Zealand (MDANZ)

#### Learning outcomes

Through participating in the half day masterclass, delegates will be able to:

- Define Wellbeing
- Recognise Signs of Stress and burnout
- Develop and implement suitable stress reduction strategies.
- Consider the role of resilience in the psychological aspects of wellbeing.
- Apply psychological safety in your environment and set clear boundaries.

#### Course Format

The curriculum is organised as follows:

**Synchronous Masterclass:** The course will be delivered as a half-day masterclass for face-to-face conference delegates. The course language is English, but the pace will be suitable for participants whose first language is not English. All participants will receive a Certificate of Attendance

Participants who wish to will be able to sign up at a discounted rate to the full online ESME course which includes additional live online teaching sessions, access to a bank of online resources, and an assessment which leads to the award of the AMEE-ESME Certificate in Wellness.



CULTIVATING INNOVATION

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**ABSTRACTS**

**DAY ONE**

**TUESDAY 2 JULY**



**ANZAHPE**

Australian & New Zealand  
Association for Health  
Professional Educators

# Plenary 1

## Health Professions Education, field to fork

Dr Naomi Steenhof, University of Toronto, Canada

The field of health professions education (HPE) research has enjoyed an impressive multi-decade growth in quality and quantity, unearthing evidence-based methods and models of learning with transformative potential for our disciplines.

However, growing an educational innovation and successfully integrating it into a lesson, course, or curriculum is not straightforward. Historically, we have concentrated on determining if a particular practice or policy works - but that's just the start. In 2024, the more pressing problem lies in the inconsistent or non-existent implementation of these evidence-based innovations. Innovations rarely yield exactly what their inventors imagined, and the impact on education has been shallow and has failed to fulfil its promise.

Health professions educators require tools to navigate the complex landscape of individual, organizational, and system-level factors that determine how we can use our innovations in HPE. Innovation must be balanced with other needs, and as such, we must focus on the entire lifecycle of an innovation.

Implementation science has emerged as an important tool in clinical practice to support the translation of theory and research findings into practical, everyday practice; using principles of implementation science to guide the translation of educational theory and research into practice is a promising approach that could support a more robust uptake of educational innovations into curricula. Key aims of implementation science include identifying the nature and magnitude of research-practice gaps, identifying the causes of those gaps, and designing and testing the effectiveness of interventions to reduce research-to-practice gaps, and in this plenary, we will explore their applicability to education theory, research, and innovation.

### Doctors Lifelong Learning Journeys: A Holistic Narrative Analysis of Continuing Professional Development Struggles

**Allen L**<sup>1</sup>, Balmer D<sup>2,3</sup>, Varpio L<sup>2,3</sup>

<sup>1</sup>The University Of Melbourne, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania,

<sup>3</sup>Children's Hospital of Philadelphia

#### **Introduction/Background**

Despite tenacious efforts of continuing professional development (CPD) developers and educators, engagement in CPD is fraught with challenges. Research shows these educational interventions and the systems that mandate them are often seen as impractical, decontextualized, and check-box activities.<sup>1</sup> This study explores doctors' learning post training and across their CPD journey to understand how they (a) conceive of themselves as learners and (b) engage in lifelong learning across the course of their professional careers.

#### **Methods**

Using narrative inquiry and holistic narrative analysis, situated within a social constructivist orientation, we carried out individual interviews with doctors from across a large children's hospital network including academic hospitals, community hospitals and primary care practices. Timelines and story arcs were used to support the re-storying of participants narratives – a key component of holistic narrative analysis.

#### **Results/Evaluation**

Twelve doctors from six sub-specialties were interviewed. We identified three noteworthy challenges as particularly salient across participants' re-storied narratives: i) train-on-a-track to treading water, ii) learning takes a backseat, and iii) learning through foraging or hunting and gathering. Participants described significant change when transitioning from training to CPD learning. While participants identified as learners, they described the disorienting impact of losing formal learning supports and structures post training. They articulated that patient care trumped learning as their top priority. They lamented having limited insight into their learning needs (e.g., little feedback data) and so resorted to engaging in CPD activities that were readily at hand—but not necessarily relevant—and to finding learning resources that might not be formally recognized for CPD credit.

#### **Discussion**

Doctors' learning journeys post training are challenging, and the systems created to support that learning are ill equipped to meet the needs of doctors transitioning from training to CPD. To encourage meaningful learning, the complex interplay of factors impeding CPD engagement should inform future innovations.

#### **References**

1. Wiese A, Galvin E, Korotchikova I, Bennett D. Doctors' attitudes to maintenance of professional competence: a scoping review. *Med Educ.* 2022;56(4):374-386. doi: 10.1111/medu.14678

## Exploring the value of Entrustable Professional Activities (EPAs) as a learning tool in occupational therapy placements.

**Penman M**<sup>1,2</sup>, Hunter S<sup>1</sup>, Brentnall J<sup>2</sup>, Harper K, Tuoma P

<sup>1</sup>*Curtin University*, <sup>2</sup>*The University of Sydney*, <sup>3</sup>*Allied Health Service Providers*

### Introduction

Early-year placements are an integral part of allied health professional pre-registration degrees, supporting students' consolidation of their theoretical knowledge, formation of their professional identity and the development of therapeutic and professional skills. With clinical sites offering placements to a number of universities, and these placements occurring at different points in the degrees, it is challenging for educators, whose primary role is to deliver services, to determine student's capabilities. With an emphasis and prioritisation of patient/client safety, students are often relegated to a role of observer. To support a shift in educator perspective of student's capabilities, six Entrustable Professional Activities<sup>1</sup> were created and implemented. The aim of the study was to explore the effectiveness of EPAs as learning tools in short, early-year clinical placements.

### Methods

This prospective qualitative study evaluated the effectiveness of EPAs through individual and small group interviews of occupational therapy educators (n=14) and students (n=8) who had experienced the use of EPAs in their short early-year clinical placements. Thematic analysis of audio-recordings was used to inductively analyse the data.

### Results

Three themes were identified. The implementation of EPAs assisted in transitioning students from observing to the doing of low-risk, clinical activities through the shaping of educator's tasks; (ii) empowered student's confidence in their own abilities, and facilitated their self, and peer evaluation skills; and (iii) benefited educator productivity.

### Discussion

The findings of this study indicate that the use of EPAs as a tool for learning rather than for assessment did assist supervisors and students in making entrustment decisions, transforming educators' perceptions of early-year student competence. In being entrusted, students' confidence in their emerging competence increased. Whilst this study focused on early-year placements, further research should explore the value of EPAs for students, and their educators, at any level of their degree.

### References

- <sup>1</sup>ten Cate O, Taylor D. The recommended description of an entrustable professional activity (AMEE guide no. 140). *Med Teach*. 2020;43(10): 1106-1114. doi:10.1080/0142159X.2020.1838465.

## Tested or tradition? Fostering a spirit of clinical inquiry

**Newall F**<sup>1,2,3</sup>, Kinney S<sup>1,2</sup>, Richards S<sup>1</sup>, Hay S<sup>1</sup>, O'Neill J<sup>1,2</sup>, Hawley M<sup>1</sup>, Ramos T<sup>1</sup>, Devsam B<sup>1,2,3</sup>

<sup>1</sup>Royal Children's Hospital, <sup>2</sup>The University of Melbourne, <sup>3</sup>Murdoch Children's Research Institute

### Introduction/Background

National practice standards for Registered Nurses stipulate that nurses will engage in evidence-based clinical practice. In 2018, our institution implemented the "Tested or Tradition" competition, based on an established EBP framework<sup>1</sup>. Each year, seven Tested or Tradition competition rounds are convened, with nurses from three clinical areas competing in each round. Nurses are supported to identify a clinical question relevant to their area and investigate if it is evidence-based. A standardised marking rubric is used to score each presentation. Winners are announced at the conclusion of each round.

*This study describes the 'Tested or Tradition' competition implemented at a quaternary paediatric institution, as a strategy to support nurses engagement in EBP.*

### Methods

Data for each Tested or Tradition presentation were prospectively collected between 2018-2020. Variables included presenter demographics, presentation topics, marking rubric scores and longer-term outcomes from each presentation. Quantitative data were analysed using descriptive statistics and descriptions of outcome data were categorised.

### Results/Evaluation

Between 2018-2020, 61 Tested or Tradition presentations from 21 clinical areas were presented. The mean score for each presentation was 42(SD 4.14) out of 50. Across all presentations, the highest mean scores were awarded to the criterion describing the clinical issue and formulating a research question. The lowest mean criterion scores were for evaluating the quality of evidence and action planning. Practice outcomes from questions investigated in the Tested or Tradition competition included revisions to clinical practice guidelines, implementation of practice changes, conference presentations, and further research.

### Discussion

*Tested or Tradition' is an interactive and supportive innovation which has been successful in promoting EBP. Clinical nurses were proficient in identifying a clinical issue and formulating a research question. After completing a Tested or Tradition presentation many nurses were empowered to continue to investigate their identified clinical issue to enact change in their clinical area.*

### References

<sup>1</sup>Melnyk, B. M., & Fineout-Overholt, E. (2019). *Evidence-Based Practice in Nursing and Healthcare* (Fourth ed.). Philadelphia: Wolters Kluwer.

## Training and credentialing programs for collaborative pharmacist prescribing in Australian hospitals: A narrative review

**Amer H**<sup>1,2</sup>, Marotti S<sup>1,2</sup>, Goldsworthy S<sup>1</sup>, Widagdo I<sup>2</sup>, Kalisch Ellett L<sup>2</sup>

<sup>1</sup>SA Pharmacy, <sup>2</sup>Clinical and Health Sciences, University of South Australia

### Introduction

Collaborative pharmacist prescribing (CPP) models in hospitals involve credentialed pharmacists working closely with doctors and patients to develop medication plans and chart medications. Various CPP models have been implemented in Australian hospitals with demonstrated reductions in medication errors, length of stay and hospital costs<sup>1</sup>. There is no literature comparing training and credentialing programs in Australian hospitals.

This study aims to compare and contrast the minimum training requirements, training components and recredentialing of Australian hospital CPP models.

### Methods

Given organisational training procedures are not available in the public domain, directors of pharmacy were contacted via the Society of Hospital Pharmacists Australia (SHPA) mailing list. Directors were asked if CPP had been implemented within their department and requested to provide their training and credentialing documents. Details of CPP training and credentialing programs were summarised with similarities and differences narratively reported.

### Results

Fifteen models were reported to be implemented in Australian hospitals, fourteen (93.3%) having a formal training program. All programs incorporated prescribing modules. Twelve (85.7%) incorporated objective structured clinical exams (OSCE) or supervised cases and two (14.3%) entrustable professional activities (EPAs).

All programs required successful completion of the SHPA Clinical Competency Achievement Tool (ClinCAT) or equivalent to be eligible for enrolment. Twelve (85.7%) required a minimum of 2-years clinical pharmacy experience, one (8.3%) including the intern year. Eight (57.1%) required re-credentialing annually or after a period of absence from practice. Three (21.4%) recognised credentialing from other Australian hospitals.

### Discussion

CPP training and credentialing programs across Australia vary in minimum training requirements, training components and recredentialing. This likely explains the limited recognition of prior credentialing. Efforts by the Australian Pharmacy Council (APC) to establish accreditation standards for pharmacist prescriber education programs and the recent introduction of the SHPA national credentialing program, pave the way for the standardisation of CPP models and training programs within Australian hospitals.

**Word count = 300**

### References

1. Tong EY, Mitra B, Yip G, et al. Multi-site evaluation of partnered pharmacist medication charting and in-hospital length of stay. *Br J Clin Pharmacol.* 2020;86(2):285–90.

# Evaluating the restructured Code Black response to violence and aggression in the Emergency Department: How is it working?

**Dauids J**<sup>1</sup>, Bohlken N<sup>1</sup>, Brown M<sup>2</sup>, Murphy M<sup>1,2</sup>

<sup>1</sup>Western Sydney Local Health District, <sup>2</sup>University of Sydney

## Introduction

Our previous published research showed there were no guidelines for managing Emergency Department violence and aggression, placing healthcare staff, security personnel and patients at serious risk.[1]

Our intervention targeted before, during and after an aggressive incident.

We introduced a 'Behaviour of Concern' (BOC) chart to monitor and measure aggression; de-escalation techniques; pre-allocated team roles for restraint and a sedation algorithm, with enhanced electronic medication record for safe ordering.

An educational course using virtual reality (VR) was implemented. In 2021, we trained 660 staff. We evaluated the barriers and facilitators to implementation using the Theoretical Domains Framework.[2]

## Methods

In Phase 1 staff were surveyed (response n=61) and NSW Health restraint and hospital Code Black statistics analysed. In Phase 2, ED staff experiences were explored in face-to-face interviews (n=12). The quantitative results and qualitative results were merged. We found there were nine barriers and six facilitators to implementation.

## Results

Staff reported the new procedures worked, were confident in managing behavioural emergencies, optimistic about the changes to safety, and had improved overall teamwork. Systemic issues such as overcrowding, and access block were viewed as fundamental to effecting real change in safety. Failure to follow the new procedures was attributed to it being too difficult in the 'real world', lack of time and dependent on who is in charge at the time. Staffing challenges indicate training must be frequent.

## Discussion

Program sustainability requires deeper cultural change by deploying strategies that tackle behaviour regulation, knowledge of professional roles, skill enhancement and the promotion of evidence-based outcomes. Systemic issues require commitment at all levels of management to improve.

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## Learning in community through co-production in research and education.

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<sup>1</sup>*Monash University*

### **Introduction/Background**

Higher education curricula are grounded in society and responsive to the communities they serve. Especially in health professions, graduates are required to exhibit skills and knowledge, which provide support and care, that meet social, civic, community and environmental factors. Co-production enables equality through power sharing and promotes evidence and education practices that meet both community and student needs. The learnings from an Australian project are being developed into an exemplar for teaching and facilitating learning for engagement and inclusivity in health program change.

A case study examining academics' co-researching with mental health family carers to produce authentic knowledge and evidence for consideration within a mental health course elective is presented. Through the case study and interactive discussion, there will be exploration of the value, alongside the challenges of coproduction within research and higher education.

### **Methods**

A National study was undertaken to develop recommendations for service and system change through understanding the experiences of families and mental health service users during COVID-19. Two university academics, both educators and researchers, engaged and supported a National Mental Health Consumer and Carer Forum Project Steering Group through 6 cycles of project co-production: engagement; literature review; co-design of focus group protocol and survey instrument; data collection; interpretation of results; and preparation of a dissemination and education strategy.

### **Results/Evaluation**

The research explored the value and principles of co-research to gain a deep and authentic understanding of family's experiences and needs within mental health systems and services and how this can be carried forward into curriculum design and development.

### **Discussion**

To improve connections with and impacts on real world practice, academics must increasingly work with coproduction processes to gain authentic understanding of the needs within communities and students they serve. Coproducing research enables the production of evidence that centres those at the heart of a problem.

The optimal number of options for MCQs – four is better than five.

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<sup>1</sup>University of Otago, <sup>2</sup>University of Hong Kong, <sup>3</sup>Royal College of Pathologists of Australasia

### **Introduction/Background**

Multiple choice questions (MCQs) are usually constructed with a stem, a correct answer and three or four distractors. There has been a recent debate on the optimal number of distractors, which suggests that MCQs with 3 options (two distractors) are as effective as those with five options (four distractors). The distractors should be plausible enough to attract candidates with low ability, while higher ability candidates should be able to choose the correct option, increasing discrimination. When 0-5% of candidates choose a distractor, it is a non-functioning distractor.

### **Methods**

Using an archived 100 item Royal College of Pathologists of Australasia exam, which had 436 candidates, examiners eliminated the least functional distractor from each question. Psychometric (Rasch) analysis was performed on the original five item (four distractor) questions and on the revised four item (three distractor) questions.

### **Results/Evaluation**

Using the 0-5% guideline for non-functioning distractors, 57.5% of all 400 distractors were classed as 'non-functioning'. 92% of questions had at least one non-functioning distractor. Eliminating the worst performing distractor at least halves the number of items with non-functional distractors and removes 460 unused words. No candidates' results changed when the least functioning distractor was removed.

### **Discussion**

The analysis shows that reducing distractors from saves reading time and does not affect reliability. Moving to four option MCQs means we can increase the number of questions, increasing reliability and content validity, without increasing the length of the exam. Writing MCQs becomes easier for examiners as generating plausible distractors is difficult and time-consuming.

## Integrating Science And Practice (iSAP) assessment predicts overall performance in a Master of Nursing Practice course

**Karim M<sup>1</sup>**

<sup>1</sup>Monash University

### Introduction

An *Integrating Science And Practice* (iSAP) assessment focuses on experiential learning, student-centric education, authentic assessments, and scalable feedback. It offers students a 'stop and think' moment, compelling them to use critical thinking to address the issues and challenges inherent in each case or scenario they may encounter in real life. The current study explored the association between students' iSAP assessment performance throughout the course and their overall performance.

### Methods

Longitudinal data for Monash University students enrolled in the Master of Nursing Practice course were analysed. The MNP is a two-year (or four semesters) entry-to-practice program. An iSAP is one of the assessment tasks offered in the first, third, and last semester, each worth respectively 35%, 25% and 30% of the total mark in the relevant units. Multivariate linear regression models were fitted to determine association of each iSAP score with the overall overall course performance—assessed by the weighted average mark with a maximum score of 100—adjusting for age, gender, and residency status of the students.

### Results

Of 154 students included for the study, 69 (43.7%) were aged <25 years, 82 (53.3%) were international students and the majority were female (126, 81.8%). The mean (SD) of iSAP scores in the first, third, and last semester were 20.7 (3.8), 17.4 (4.4), and 17.6 (3.5), respectively. The mean (SD) for WAM was 70.9 (5.8). After adjusting for the relevant covariates, higher iSAP scores were independently associated with higher overall performance ( $\beta = 0.8$ , 95% CI .5 to 1.1;  $p < 0.001$ ), ( $\beta = 0.8$ , 95% CI .6 to 1.0;  $p < 0.001$ ) and ( $\beta = 0.7$ , 95% CI .4 to 0.9;  $p < 0.001$ ), for the first, third and last iSAP scores.

### Discussion

In summary, iSAP assessment appears to predict MNP students' higher overall performance, emphasising its significance in nursing education.

# The Role of Anonymous Patient Feedback in Shaping Audiology Students' Soft Skills

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## **Introduction/Background**

Audiology student clinical training involves developing both technical and soft skills, including patient interaction for patient-centered care. With growing student cohorts, limited time with educators hinders comprehensive feedback. Patient involvement in developing communication and rapport skills has been demonstrated in other healthcare disciplines. This study aims to assess the value of anonymous patient feedback for audiology students, focusing on the alignment between student and patient judgments of soft skills and understanding how students utilize such feedback.

## **Methods**

Using a mixed methods design, Likert surveys gathered patient (n=31) and student (n=13) ratings on professionalism, compassion, and communication skills. Semi-structured interviews with students provided perspectives on receiving anonymous patient feedback. Quantitative data underwent analysis through Spearman correlations, while qualitative data was subject to reflexive thematic analysis.

## **Results/Evaluation**

Patients consistently rated students higher across measures, correlating significantly only for talking skills. Five themes were identified: 1. Emotional impacts, 2. A worthwhile experience, 3. Contrasting priorities, 4. Patients retake centre stage, and 5. Self-reflective learners (subtheme Imposter syndrome).'

## **Discussion**

This study reveals that anonymous patient feedback holds value for audiology students. The feedback prompts students to approach interactions more seriously, emphasizing soft skills crucial for patient-centered care. The process enhances confidence and reinforces awareness of the patient's perspective. While these findings indicate positive outcomes, further investigation is essential to gauge the extent of impact and assess the feasibility of implementing a large-scale patient feedback program in clinical training settings.

# The impact of simulation with debriefing on clinical competence and performance in paramedicine students

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<sup>1</sup>*Griffith University*

## Introduction

Paramedics attend both emergency and non-emergency patients experiencing a wide range of medical and trauma conditions (1). Any deficiency in competence can have detrimental consequences on patient safety and outcomes (2). Student paramedics must be deemed competent by relevant oversight bodies entrusted with safeguarding the profession and the public. Growing evidence shows that simulation facilitates attainment and reinforcement of clinical and non-clinical competencies (3). There is a paucity of evidence exploring the impact of simulation on developing clinical competence in undergraduate paramedicine students. Debriefing is also shown to improve clinical competence and performance (4).

## Aim

The aim of this study was to determine whether there is an association between weekly practical and summative practical exam performance among paramedicine students in a simulated setting.

## Methods

This was a retrospective analysis of outcome data collected from 2019 to 2023 of weekly feedback assessment of clinical performance rated by paramedicine educators on paramedicine students and compared to the summative practical exam outcome in the simulated setting for the cardiac course. Ethics approval was obtained (GUHREC Ref No: 2024/073). This study was conducted at Griffith University paramedicine program. Analysis included data that was collected using the clinical competence assessment tool (CCAT) as part of a novel approach in developing clinical competence using simulation with debriefing. Practical sessions occurred once a week over a 12-week trimester each year per cohort followed by a summative practical exam.

## Results

Five years of assessment data was included in the analysis, averaging 53 students per year. Clinical competence and performance gradually improved weekly over four of the five-year period. The single year period observing a negative impact was likely due to a significant decline in scenarios from COVID lockdowns in 2020. Increasing frequency of scenarios performed during weekly practical sessions was associated with attaining a pass result for the summative practical exam.

## Discussion

Clinical competence and performance of paramedicine students improved gradually each week as rated by paramedicine educators despite the introduction of new content each week. This is in agreement with other healthcare education (5). Applying Kirkpatrick's four levels of evaluating the impact of educational programs, evidence shows simulation having a clear improvement in the first three levels including satisfaction, knowledge, and performance (6). Although Kirkpatrick's level four evidence evaluating the impact on patient outcomes is only beginning to emerge (7-10), increasing the frequency of simulations has been associated with improved clinical competence (11, 12).

## References

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# What we say vs what we do- How 'programmatic' are programmatic assessment systems in health professions education - A scoping review protocol

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<sup>1</sup>*The University Of New South Wales*

## Introduction

Programmatic assessment is a highly sought-after approach in health professions education when considering curricular reforms<sup>1</sup>. As articulated in the Ottawa Consensus Statement (2020)<sup>2</sup>, this approach is grounded within a set of core principles. Despite its pedagogical soundness, the scarcity of substantial evidence and case studies pertaining to details how certain principles are designed -proportionality, triangulation, and holistic decision-making-, misinformation, and adverse outcomes following implementation is concerning. This protocol delineates a scoping review investigating the interpretation of "programmatic" within case studies that assert their assessment systems as programmatic. The second aim is to investigate which are some of the underlying socio-cultural and structural conditions at micro and macro levels influencing the enactment of programmatic assessment.

## Methods

The conceptual framework for the scoping review will be guided by critical realism, which is suitable for complex approaches. The Joanna Briggs Institute guidance on evidentiary synthesis will be implemented. A wide range of electronic databases and grey literature sources will be searched (2010-2024). The review will include primary data from any relevant research, case studies, audit, or evaluation studies. All review steps will involve two or more reviewers.

## Results

Initial rapid review revealed a lack of clarity and conflicting evidence regarding the definition of 'programmatic' when educational programs asserted that their assessment system follows the approach. Preliminary findings expand on the scarcity of information regarding the educational design of fundamental principles, including data triangulation and longitudinal considerations within competency domains, along with validation of high-stakes decision-making.

## Discussion

This review aims to enhance understanding by identifying core and non-negotiable foundations for an assessment system to be deemed programmatic. The findings delve into the intricate details of the underlying design of such systems and will provide much-needed guidance to program directors and curriculum designers who wish to undertake major curricular reforms in health professions education.

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## Student perceptions of their clinical skills pre & post engagement with a remediation program in final year of med school.

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<sup>1</sup>The University of Western Australia

**Abstract:** Remediation and academic support have long been discussed in medical programs. Over the last decade, a number of support programs have been put into place to try to mitigate this issue at one Australian university medical degree.

### **STREAM: Assessment**

**Five Key Words:** OSCE, remediation, support, student perceptions

**Award:** ANZAPHE Clinical Education award

#### **Background:**

- At UWA, the OSCE is the major barrier to final year students completing the MD postgraduate course.
- A “Pre-mediation” Program was run in 2023 throughout final year for students identified “at risk” for difficulties in clinical skills (CS) performance at the final year OSCE.
- Previously, shorter remediation had occurred closer to exam time. The new format was intended to have greater educational impact.
- Evaluation was conducted pre-and-post completion on a range of clinical skills to gauge confidence and competence.

#### **Summary and \*results:**

- Data is currently being analysed, however, early data analysis is showing a marked improvement from confidence levels (pre-evaluation) to high agreement that the Program has helped them to improve their clinical skills.
- At the start of the program, nil students selected the ‘highest’ level of confidence in any of the six clinical skills.
- At the conclusion of the program (data is still being analysed), the perception of confidence in History taking skills improved from 34% to 70%; Investigation skills improved from 27% to 62% agreement and Clinical Reasoning from 54% to 77%).  
*\*More data to come.*

#### **Take home messages:**

- Intervention makes a difference to students’ clinical skills.
- When to intervene is important.
- Keep investigating ways to promote and support students to achieve necessary clinical skills.

#### **References:**

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## Creating a New Medical Humanities Module for 3rd Year Doctor of Medicine: Lenses, Skills, and Engaging with the Arts

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<sup>1</sup>University Of Melbourne

### Introduction/Background

*This PeArL is in curriculum design, providing an overview of insights gleaned from the development and first delivery of a new Medical Humanities 4-week intensive Discovery Module in the University of Melbourne's Doctor of Medicine degree.*

*Designing this curriculum initiative, we drew on the humanities' well-established pedagogies to bolster moral faculties of empathy, awareness and imagination cultivated through attentiveness. We focussed on the humanities as expressed and experienced through the Arts, including multi-media and visual arts, music and performance arts, and literature. The core co-teaching team is interdisciplinary, interweaving our expertise in visual arts, museum studies, music, medical education, and medicine. The team sought to provide a multi-modal teaching and learning environment, including face to face and virtual engagements for students, in diversely stimulating cultural contexts, including metropolitan and regional field trip experiences in cultural venues. A curated selection of supplementary Arts resources was provided for asynchronous online access.*

*The experiences over the 4 weeks of the subject were aligned to 4 themes chosen during the curriculum design phase. These 4 themes are Observation and Moral Dimensions; Collaborative Practice; Social Determinants of Health; and Creativity and the Medical Professional.*

### Methods

*The first iteration of this 4-week module will be delivered to a group of 20 MD3 students in March 2024.*

### Results/Evaluation

*Data to inform the discussion of the topic will include self-reported findings from the development and teaching team, guest lecturers/workshop presenters and anonymized samples from student blogs and essays submitted during Module delivery.*

### Discussion

*The role, purpose and structure of medical humanities in medical education continues to evolve. Learnings from the development and delivery of this innovative curriculum will inform future delivery and also development of a planned interdisciplinary international health humanities module.*

### References

*Carr, S. E., & Hooker, C. (2023). Health humanities for inclusive, globally interdependent, supportive and decolonised health professional education: The future is health humanities! Focus on Health Professional Education: A Multi-Professional Journal, 24(4), 123*

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### Issues or questions for exploration

*'Medical humanities' has several possible meanings. These include using the humanities to examine the humanistic aspects of medicine, artistic works produced by doctors, artistic works with a medical topic, and overlap with medical ethics. The goals of medical humanities subject can vary – is the focus on the health practitioner's personal development, communication skills, empathy skills?*

*Is 'medical humanities' the best terminology?*

*Do participants agree with the curriculum development decisions we made e.g. the focus taken, topics covered, methods of delivery, and assessment design?*

*How does the information available from our first delivery inform these issues?*

## The Role of Online Videos in Teaching Procedural Skills in Postgraduate Medical Education: A Scoping Review.

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### Introduction/Background

Online videos are a valuable teaching medium. A prior systematic review conducted by us demonstrated that while YouTube videos are in widespread use in health education, the quality of the videos available on this platform was variable.<sup>1</sup> Many videos are of poor quality, and important safety information is absent in 10-20%.<sup>2</sup> The scoping review aimed to outline the extent of available literature, including the prevalence of video quality appraisal tools, characterise how online videos were used, and identify the gaps in the literature with implications for future research. This review formed the starting point of a doctoral research project exploring the role of online videos in teaching procedural skills to postgraduate learners.

### Methods

A scoping review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) and the Joanna Briggs Institute (JBI) for evidence synthesis. Six databases were searched: (1) MEDLINE (Ovid), (2) EMBASE, (3) Cochrane, (4) ERIC, (5) CINAHL PLUS, and (6) Google Scholar for Medical Subject Headings terms online videos, postgraduate health education, and health professional/s. We used the Theoretical Framework for Collaborative Learning Using Technology as our lens for data synthesis.

### Results/Evaluation

Seventy-eight articles of 6948 identified articles were included in the review. Data synthesis identified twelve factors that were important in creating a collaborative learning environment, and these were grouped into educator, learner and multimedia learning domains. These twelve factors will be further outlined in the oral presentation.

### Discussion

Online videos are increasingly being used in postgraduate education. There is a growing body of literature on this area and growing concern about the quality of online videos.

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## Learning about 'noticing' and interprofessional collaborative practice: a pilot curriculum

**Denniston C**<sup>1</sup>, Bolton J<sup>1</sup>, Clement T<sup>1</sup>, Cracknell C<sup>1</sup>, Donald K<sup>1</sup>, Norris N<sup>2</sup>, Tey C<sup>1</sup>, Virtue D<sup>1</sup>, Molloy E<sup>1</sup>

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### Introduction/Background

The metacognitive capability of 'noticing' has been proposed to help health professionals become sensitised to what is happening around them, within themselves, and to nurture inquiry into one's practice (Clement et al., 2023). This paper presents pilot data from the implementation of a noticing curriculum across three health professions (medicine, nursing and physiotherapy). We chose interprofessional collaborative practice (IPCP) as the disciplinary context or 'vehicle' to learn about 'noticing'. The curriculum therefore aimed to develop the metacognitive capabilities required to think about 'what' and 'how' one notices in the context of the vocational activity of IPCP.

### Methods

The three-part curriculum included 1) a sixty-minute self-paced e-module covering the conceptual knowledge of 'noticing' and IPCP; 2) observation or participation in a workplace interprofessional team-based activity (e.g., interprofessional family meeting) and debrief with a team member from a different profession and 3) a reflective graded assignment about 'noticing' in the context of IPCP. The intervention was evaluated using a post-intervention student survey; a sample of students' reflective assignments; and interviews with educators who had marked these assignments.

### Results/Evaluation

Educator interviews (n=6) and survey (n=75) data revealed a variety of activities outside of the intended design, that may have influenced what and how students chose to write their reflective assignments. Submitted reflections (n=17) predominantly focused on IPCP, with only 14% of the writing focusing on noticing. It appeared that students had not used IPCP as the vehicle to learn about 'noticing', but rather the inverse.

### Discussion

This pilot has revealed two key learnings: 1) careful constructive alignment and assessment design to reinforce diverse learning outcomes is essential to ensure the vehicle and the context in which learning occurs is clear; 2) educator benchmarking is essential when combining multiple aims in one educational intervention, for assessment and student instruction.

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Clement, T., Bolton, J., Griffiths, L., Cracknell, C., & Molloy, E. (2023). 'Noticing' in health professions education: Time to pay attention? *Medical Education*, 57(4), 305-314, doi:10.1111/medu.14978

# Transforming students' evidence-based practice knowledge, skills and attitudes through an applied educational intervention

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<sup>1</sup>University Of Sydney

## Introduction

Evidence-based practice (EBP) is an integral skill for health professionals, however it is innately complex and challenging for students to engage with. To ensure that EBP is well taught, it is essential to address each aspect in the curriculum. The curriculum should be constructively aligned and integrated throughout both theoretical and work integrated learning curricula (Thomas et al., 2011). The Evidence-Based Practice – Applied Educational Intervention (EBP-AEI) is a pedagogically sound curriculum intervention aimed at enhancing students' knowledge, skills, and attitudes towards EBP. This study aimed to evaluate this intervention.

## Methods

An integrated mixed method approach was adopted. Firstly, students were surveyed using a reliable, validated survey tool - the student Evidence-Based Practice Questionnaire (sEBPQ) (Upton, ND). This survey was administered both before and after undertaking the EBP-AEI, and the resulting data were analysed using descriptive and inferential statistics. Secondly, focus groups were conducted to gain a rich understanding of students' experiences of the intervention. These qualitative data were analysed using reflexive thematic analysis. The findings from the quantitative and qualitative approaches were explored for a comprehensive evaluation.

## Results/Discussion

Data collection for this study was concluded in November 2023, and the subsequent phase of data analysis is currently underway. Preliminary findings indicate that students tended to have more confidence in their ability to complete the early stages of the EBP cycle with confidence in skills highest when asking questions and searching for evidence and lowest for implementing and evaluating changes. Additionally, the need for signposting within curriculum, to ensure that students understand how each of the different aspects of EBP fit together was highlighted. This presentation will discuss the implications of the findings for academics designing curriculum with EBP in mind

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# Equality of racial representation in dermatology medical education in Australia and New Zealand.

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## **Introduction/Background**

Current dermatology curriculums at medical schools in Australia and New Zealand (ANZ) demonstrate a significant underrepresentation of images and clinical principles reflective of people of colour (POC). This is a flow-on effect of the larger foundational inequity that exists in dermatology globally. A recent review of eight commonly used dermatology resources (6 textbooks and 2 web-based resources) demonstrated that only 19.5% of images depicted skin of colour (1). This is particularly harmful in dermatology training as the field has a substantial reliance on imagistic resources to build efficient pattern recognition. This is a vital skill as it enables clinicians to effectively categorise presentations of cutaneous disease as urgent or suspicious, thereby enabling accurate diagnosis and prompt escalation. Importantly, key clinical characteristics such as morphology and distribution are often influenced by skin colour and ethnicity (2). The aim of this project is to create a snapshot of current standards of dermatological medical education in ANZ medical schools in representing POC.

## **Methods**

Data from 25 ANZ medical schools pertaining to their clinical exposure and dermatological teaching and assessment practices will be collected through questionnaires to faculty and students from March 2024. The questionnaire developed by the British Association of University Teachers of Dermatology (BAUTOD) will be modified under Australian dermatologists' guidance to satisfy the scope of the project.

## **Results/Evaluation**

Proposed data collection includes qualitative and quantitative analysis of representation of POC in clinical teaching including hours of tutorials and case-based learning sessions, lectures, and dermatology specific clinical placements. Study materials such as learning objectives will be assessed to ascertain effectiveness of representative dermatological teaching. Here, access to question banks and images will be quantitatively analysed. Data on formative and summative assessment practices such as quizzes and exams will be attained in addition to confidence levels of medical students in diagnosing common presentations in POC.

## **Discussion**

In accordance with current literature, it is predicted that this project will establish a significant underexposure of POC of in dermatology teaching resources, clinical exposure and assessment. The highlighted gaps will be utilised to develop recommendations for a core dermatology curriculum and supplementary resources to facilitate curriculum delivery in the forms of didactic modules, case-based learning tutorials and assessments.

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### **Issues or questions for exploration**

How effectively do Australian and New Zealand medical schools teach key clinical dermatology principles in preparation for the workforce?

What is the current state of representation and exposure of POC in dermatology clinical education?

What are medical students' and junior doctors' perspectives and confidence levels regarding their ability to diagnose, examine, investigate, and manage key dermatological presentations in POC?

What are the potential barriers to creating and implementing a centralised and diverse dermatology curriculum? What would a centralised core curriculum look like?

What are the most effective teaching, consolidation and assessment methods to teach core clinical dermatological principles to medical students and junior doctors?

What information do we need from medical schools to implement this?

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## TACTICS VR: State-wide, Multi-audience, Virtual Reality Workflow Training for Hyper-Acute Stroke Care

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### **Background:**

Significant variability in stroke management exists, in part due to workflow complexity and requirements for effective coordination across multi-disciplinary teams. We hypothesised that new workflow training using virtual reality could reduce process variability and improve patient outcomes.

### **Aims:**

We developed TACTICS VR, a portable training application to upskill healthcare staff in best-practice stroke workflow. Trainees work through a real-world case, making active decisions and receiving real-time feedback. We assessed the usability, acceptability, utility and feasibility of multiple TACTICS VR modules in real-world clinical contexts specifically targeting 1) doctors, 2) telestroke, 3) nurses and 4) paramedics.

### **Methods:**

Four modules for TACTICS VR have been developed in partnership with multiple local health districts, including the Agency for Clinical Innovation and NSW Ambulance. The first focused on Hyper-acute Stroke Management and created as part of a package intervention within the TACTICS implementation trial (Ryan et al. 2022 BMJ Open). A Telestroke module supported the state-wide roll-out of NSW Telestroke Service. The third module supports in-hospital stroke nursing and the most recent module supports pre-hospital paramedic training in relation to stroke care processes.

### **Results:**

TACTICS VR has now been used in 50+ hospitals in NSW, QLD and SA, including >850 sessions totalling >290 training hours. Trainee feedback indicates high levels of usability, acceptability and utility in multiple clinical contexts. Specifically, after completing TACTICS VR trainees report increased confidence to make improvements in stroke management and confidence in understanding stroke workflow practices and believe VR is effective to teach / transfer knowledge for acute stroke.

### **Conclusion:**

TACTICS VR is a fit-for-purpose, evidence-based training application for stroke workflow optimisation that can be readily deployed in a clinical setting. We continue to explore approaches to sustain training and expand modules both within stroke and in other hyper-acute clinical contexts.

# MEASURING THE EFFECTS AND FEASIBILITY OF VIRTUAL REALITY IN DEVELOPING EMPATHY AMONG MEDICAL STUDENTS IN A PAEDIATRIC SETTING

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## **Background**

Delivering empathetic care is an integral part of clinical practice and has been shown to directly impact patient outcomes. Virtual reality (VR) technology offers a resource and time efficient method to enhance empathy skills in medical students, by providing a unique insight into patient perspectives.

## **Objective**

Our study aims to evaluate the effectiveness and feasibility of incorporating VR technology into a medical student curriculum to improve empathy in a paediatric setting.

## **Methods**

Using a virtual reality headset, participants experienced a short paediatric clinical scenario, depicting a ward round from the viewpoint of a child. The Thomas Jefferson Physician empathy questionnaire was completed pre- and post-VR experience. Participants also completed an anonymous survey at the conclusion of the session, which included open ended questions about the VR experience.

## **Results**

There was a significant increase in self-reported mean empathy scores post VR experience ( $p < 0.0001$ ). Qualitative analysis of the open-ended survey questions about the VR experience identified four key themes. These included lack of involvement of the patient (child) in the clinical encounter, minimal introduction and communication with the patient and carer, the overwhelming nature of a clinical consult, and the importance of consideration of a patient's perspective. 100% of the participants ( $n=22$ ) agreed that they would benefit from utilising VR as a learning tool in their medical education.

## **Conclusions**

VR technology is an effective educational modality to improve self-reported empathy in medical students. As a resource and time efficient technology, it has considerable potential to be implemented into existing educational activities for health care students and professionals.

# Self-reported behaviour change during patient interactions by optometry students after receiving feedback about their online interpersonal skills

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## **Background**

We previously demonstrated the feasibility and effectiveness of providing optometry students with anonymous feedback about their interpersonal skills, from patients and clinical educators through a mock telehealth consultation (Nguyen et al 2023 doi:10.1080/08164622.2023.2195049). Here, we report the perceived usefulness of the activity by students, and subsequent self-reported student behaviour changes during patient interactions.

## **Methods:**

Real-time videoconferencing (Zoom) was used to mimic a telehealth consultation between patients and student optometrists (n=40), observed by an anonymous clinical educator. Patients and educators completed online feedback questionnaires about student performance. Feedback was shared to each student for self-reflection, who were invited to complete an anonymous survey to evaluate the activity. Responses to the question: "Since receiving feedback from [patients or teachers] I have altered my interactions in the following way/s" were thematically analysed for patient and teacher feedback separately. Initial deductive coding identified the prominent themes based on the 12 domains of the Doctors Interpersonal Skills Questionnaire, followed by inductive coding of emerging themes and sub-themes, and verification of the extracted themes.

## **Results:**

Thirty-one students returned evaluation survey results (78% response rate). Students agreed that patient and teacher feedback was useful (97% and 93% responses, respectively), and used the feedback to improve their clinical competence (100% and 93% of responses, respectively). After receiving feedback, students reported behaviour changes related to 7 prominent themes, in descending order of frequency: language and information delivery (30 responses), communication techniques (21 responses), patient-centred approach (21 responses), manner (10 responses), relationship building (8 responses), self-confidence (4 responses), and body language (4 responses). For the most prominent theme, students reported altering their language and information delivery in response to patient and teacher feedback equally (15 responses each).

## **Discussion:**

Upskilling students' interpersonal skills, using online teleconferencing technology, "virtual patient" and teacher feedback, helps future optometrists prepare for successful patient interactions.

## Increasing the use of video-based resources in health professional education for online and face-to-face teaching

**Vanlint A**<sup>1,2,3</sup>

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### **Introduction:**

With the rapid increase in streaming entertainment services, online courses and social media content, society is increasingly engaged via digital media in the form of video. Education is following this trend, with new courses based completely online and a growing quantity of free resources on platforms like YouTube, Facebook, TikTok and Instagram. Traditional University courses and hospital-based education has been slower in the uptake digital media, lagging behind the increasingly high standards of video content in other industries.

### **Methods:**

In hospital networks in our state, video content is being more utilised and in higher production value. One network engages external production teams to produce content which is publicly facing for the benefits of public engagement, building their brand & reputation, and recruiting more staff, whilst also producing high quality videos to promote new initiatives and improve clinician engagement. Another network is producing videos predominantly for internal, educational use; providing video orientations for every intern rotation, building a library of content to cover teaching procedures & transitioning into the Australian healthcare context. Even working with basic equipment and facilities, content of good standard can be produced by teams willing to invest in its pursuit.

### **Evaluation:**

We will present an overview of different healthcare-related video content, reviewing examples at different production values and for different purposes, providing insights into costs and production methods. We will also look at the increasing role of AI in content creation which can reduce costs and increase quality.

### **Discussion:**

This session is for two groups of educators; those who are not yet utilising video but are keen to, and those who are already producing video content but want to improve or expand their production capabilities.

Issues for Exploration:

1. What are educators currently doing in the area of video utilisation and production?
2. What are the opportunities available to us via better use of video content for healthcare education?
3. What are the barriers to progress and how can we overcome them?

## The intersection of learning design and generative AI in medical education

**Dalziel B**<sup>1</sup>, O'Connor E<sup>1</sup>, Visini G<sup>1</sup>

<sup>1</sup>*Western Sydney University*

### **Introduction**

The emergence of generative AI is causing universities to rapidly rethink the way they create both assessments and content. Simultaneously, medical courses are frequently taught by time poor content experts, often clinicians, who don't have a strong background in medical education. This presentation investigates the affordances and constraints that generative AI can offer for learning design, specifically in the creation of team-based learning (TBL) tutorials in an undergraduate medical degree.

### **Purpose/Objectives**

To evaluate the use of an AI tool in automatically generating a functional team-based tutorial in neuroscience for a second-year medical program as compared to tradition production of a similar tutorial.

### **Methods**

Using the Learning Activity Management System (LAMS), generative AI and a TBL learning design template, a ready to run tutorial with automatically populated content was created based on TBL-oriented AI prompts. This study compares and contrasts this experience with a traditionally created neuroscience TBL tutorial, specifically looking at total development time, the number of iterations required, and staff and student feedback.

### **Results**

The analysis of the two TBLs is currently in its early phase and the findings will be reported. A key factor in the use of AI is the appropriateness and specificity of the prompts.

### **Discussion**

Generative AI could substantially lower the entry threshold to effectively adopting new learning designs. Potential benefits include reducing the extraneous load of pedagogical design for content experts, including removing "blank page" procrastination, and limiting the burden of learning new software systems. Drawbacks are potentially incorrect depth or targeting of required content, AI content hallucinations, incorrect use of AI prompting, and low quality assessment items. The discussion of the research findings to date will conclude with how this information can be further utilised to potentially benefit other aspects of the course.

## The keys to teaching excellence: Cultivating excellent practice in educators and mentors

**Goode C<sup>1</sup>**

<sup>1</sup>Otago Polytechnic

### Introduction

*The notion of 'teaching excellence' is complex and multi-faceted, which raises questions around what 'excellent' teaching looks like. To better understand different elements of excellence, this research investigates the stories of Tertiary Teaching Excellence awardees, exploring their trajectories and practice, including views on their identity and on excellence in tertiary teaching.*

### Methods

*Narrative inquiry was used to investigate the stories of twelve national Tertiary Teaching Excellence awardees in New Zealand. One semi-structured one-to-one interview was conducted with each participant (totalling almost 14 hours of discussion). This presentation focuses on selected findings resulting from the analysis of narratives (Polkinghorne, 1995) – following the six phases of Braun and Clarke's (2006) framework – highlighting themes occurring across the set of twelve stories.*

### Results

*I propose a model – 'The Keys to Teaching Excellence' – which captures the principal elements of excellence in practice. Five over-arching keys are each made up of characteristics inherent in a teacher's personality, and skills which can be developed through practice and reflection. Findings highlight awardees' views on their identity and practice, including a genuine love of learning, a willingness to recognise there is always more to learn, and the importance of reflecting on practice.*

### Discussion

*The findings contribute to existing research and knowledge around what teaching excellence looks like.*

*Educators, mentors, and teacher developers can gain a deeper understanding of teaching excellence, which may enable different interventions to develop excellent practice from staff, raise standards, and encourage teachers to embrace personal development and lifelong learning. I hope, too, that educators will recognise elements of themselves and their practice, and will feel (re-)motivated, (re-)energised, and inspired to share these with their peers.*

### References

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch & R. Wisniewski (Eds.), *Life history and narrative* (pp. 5-24). The Falmer Press.

## Evidence, pedagogy and unlocking genius: reducing anxiety and facilitating Mathematical Mindset in undergraduate nursing courses.

**Stewart K**<sup>1</sup>

<sup>1</sup>UniSA

### **Introduction / Background**

Anxiety associated with the mathematical skill is a reality for many. There are multiple reasons for this maths anxiety, including negative educational childhood experiences. To ensure students meet the National Safety and Quality Standard 4: Medication Safety Standard, nursing students must demonstrate 100% medication calculation accuracy. Commonly available student support for medication calculations is heutagogy based; therefore, the transition from maths anxiety to maths mastery remains a continuing challenge for students in the Bachelor of Nursing (IBNU) at our university.

### **Methods**

Jo Boaler's Mathematical Mindsets child-centred constructivism pedagogy method and principles were adapted for suitability in an adult learning environment. Activities that were integrated into a stage two paediatric IBNU course to reduce anxiety and re-write the narrative of maths mastery will be shared in this oral presentation.

### **Evaluation**

Student feedback indicates that the adapted use of Mathematical Mindsets reduced maths anxiety and prepared them for practice in the simulated workshops aligned with the course. Students reported embracing the power of mistakes within a safe learning environment opened them up to a growth mindset and helped them realise their unique maths genius. Engaging in the activities also enabled students to develop strategies to improve efficacy and reduce the mental load of medication calculations.

### **Discussion**

Safety of medication administration is dependent on maths mastery. It is imperative that maths anxiety is addressed in both IBNU students and students enrolled in other health programs. Further research is essential in order to establish the effectiveness of adapted pedagogy, such as Mathematical Mindsets, in andrological learning.

# Innovating the delivery of intensive care nursing education during the COVID-19 pandemic and beyond

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## Introduction

In 2020, Department of Health, Victoria mandated strict lockdowns preventing students attending university campuses due to the COVID-19 pandemic. Monash University's postgraduate intensive care nursing degree, transitioned from on campus to online course delivery throughout 2020 and parts of 2021. Thereafter, students chose either mode, supplemented by asynchronous online learning. This study aimed to evaluate the delivery of a postgraduate ICU nursing course during and post COVID-19.

## Methods

Course delivery mode, content, learning and teaching activities and clinical experience were evaluated through a Qualtrics survey that included open-ended questions. Data were collected from students between March 2020 and June 2023. Free text responses were analysed using Framework Analysis (Ritchie & Spencer, 2002). Ethics was approved by the university human ethics committee.

## Results

The average response rate was 50% across seven student cohorts (n=948). On course commencement, 76% of students had under 12 months prior ICU experience. Three themes represented aspects of ICU course delivery that challenged and supported learning. (1) Clinical Learning Environment: students consistently valued appropriate clinical educator support and relevant clinical learning opportunities. High student-to-educator ratios, or patient complexity disparate from course curriculum challenged their learning. (2) Educational Delivery: despite more students choosing online classes, group dynamics negatively impacted their experiences more often than on campus students. (3) Learning Content/Resources: regardless of the delivery mode, students valued problem-based case scenarios that simulated authentic clinical practice situations; and felt most confident about topics applicable to practice.

## Discussion

COVID-19 forced innovative change to ICU course delivery, viewed positively by students, and maintained beyond the pandemic. Students comprehend concepts more readily when learning activities and resources are directly applicable to clinical practice, and they value flexibility in choice of delivery mode. However, engaging students in online environments can be challenging and requires further refinement.

## References

Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. In the *Qualitative Researcher's Companion* (pp. 305-329). SAGE Publications, Inc., <https://doi.org/10.4135/9781412986274>

## Supporting rural allied health clinical supervisors to facilitate quality allied health student placements: Findings from a survey of Allied Health Professionals in the Midwest and Gascoyne region of Western Australia.

**Fitzgerald K**<sup>1</sup>, Goodale B<sup>1</sup>, McKenzie S<sup>1</sup>

<sup>1</sup>*The WA Centre for Rural Health, The University of Western Australia*

### Introduction

In this research, we explored the perspectives of rural and remote allied health professionals (AHP) related to their needs in providing student clinical supervision. In rural and remote areas, workforce shortages impact services, and one strategy to address this is to encourage students to consider rural employment after graduating. While efforts addressing this often focus on student experiences, we must consider the capacity and support of rural AHPs and practice models. Our region is geographically vast, and the WA Centre for Rural Health partners with health providers in various practice settings to facilitate student placements.

### Methods

A survey adapted from a validated instrument was piloted and then promoted to all AHPs in the region. Analysis included descriptive statistics and thematic analysis.

The survey explored.

- allied health background, employment, and experience.
- student supervision experiences, exploring enablers and challenges.
- perceptions of the benefits and challenges of rural student supervision and its broader impact on their practice.
- training in clinical supervision.
- preferences about student placement models.
- priority training needs.

### Results

Respondents (N=36) were AHPs from twelve professions. The majority were in clinical roles and had worked for less than ten years. Most (N=26) had recently supervised students, and eleven had completed clinical supervision training. Respondents described a range of benefits and challenges associated with providing student clinical placements, identified support they may need as a clinical supervisor and noted preferred models of student placements.

### Discussion

The results of this research inform how student placements can best be designed in rural and remote areas, enabling and supporting supervising rural AHPs to facilitate excellent learning experiences that prepare students for rural practice within their practice models. We will also discuss how the results inform strategies to support the development of supervisor capability in the rural clinical AHP workforce.

# Perspectives in Learning an Entrustable Professional Activities (EPA) Through a Novel Training Blueprint, Constructed Using the Four-Component-Instructional-Design (4C/ID).

**Chan Cui Mun S**<sup>1</sup>, Aung T<sup>1</sup>, Yip C<sup>1</sup>, Ong C<sup>1</sup>, Loo G<sup>1</sup>, Heng S<sup>1</sup>

<sup>1</sup>Khoo teck puat hospital

## Introduction/Background

EPA are professional whole-tasks, requiring integrating different competency domains, which a trainee is entrusted to independently perform. Nursing education has become EPA-based nationwide. 4C/ID framework, underpinned by Cognitive Load (CL) Theory, designs training blueprints for whole-task learning by regulating CL. The four components include learning whole-tasks, supportive information (nonrecurrent task-aspects like reasoning), procedural information (recurrent taskaspects like Ryle's-tube feeding) and part-task practice (automating recurrent taskaspects).

## Methods

A 4C/ID-designed blueprint for EPA (management of ward patients) in final-year nursing-diploma students (n=110) was developed through action research (collaborative discussions and investigations to understand causes and predict changes). Skill clusters were determined through cognitive task analysis and mapped to different competency domains. Learning activities and assessments were constructed through iterative learning cycle with critical reflection to link clinical expertise to teaching.

Validated instruments were used to measure students' learning experiences (18-item Modified Course Experience Questionnaire [MCEQ]) and various CL (10-item Cognitive Load Questionnaire, [CLQ] score range 1-10).

Results/Evaluation Students who responded positively to MCEQ components (percentage) included: "problem-solving"(73.1%), "personal-planning"(77.8%), "teambuilding"(78.7%), "handling-unfamiliarity"(68.5%), "practicality"(67.6%), "teachingpace"(75.9%), "course-clarity"(75.7%), "explanatory-lectures"(84.0%), "improvedunderstanding"(80.6%), "helpful-feedback"(81.3%), "supportive-teachers"(78.7%), "interesting-topics"(68.2%) and "overall-experience"(75.9%). Median CLQ scores [inter-quartile range] for different CL were favorable: intrinsic (5.00[3.00]), extraneous (3.00[3.00]) and germane (7.00[3.00]) loads.

## Discussion

4C/ID effectively developed an efficacious and comprehensive EPA-based training program. It promoted learning through CL optimization by reducing extraneous load (which depletes memory capacity), having manageable intrinsic load (task-related), and increasing germane load for schema formation.

## References

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2. ten Cate, O. (2005). Entrustability of professional activities and competencybased training. *Medical Education*, 39(12), 1176-1177. <https://imsva91-ctp.trendmicro.com:443/wis/clicktime/v1/query?url=https%3a%2f%2fdoi.org%2f10.1111%2fj.1365%2d2929.2005.02341.x&umid=CDFE50BE-10DA-2506-B7CA73BEDEABCE43&auth=6e3fe59570831a389716849e93b5d483c90c3fe4-65cf09ec612c88c56542491bf40a744c7a1ccf86>

## “Operationalising longitudinal audio diaries (LADs)” - from theory to educational and research practice

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### Introduction

Longitudinal Audio diaries (LADs) provide an opportunity to convey nuances of the lived experiences, enabling a means of self-reflection and sense-making. LADs were enlisted in a postgraduate Quality Supervision short course for health professions educators, to facilitate the participants' ability to capture their subjective lived experiences when providing clinical supervision and feedback. Key findings and insights from incorporation of LADs into this course will be presented, and its potential applications in health professions education and research.

### Method

Throughout the course participants were randomly assigned to groups of two to three. Participants recorded and submitted weekly LADs, and provided feedback to their peers' submissions. Participants incorporated peer feedback into their subsequent LAD submission to illustrate reflexive practice. A final summary LAD reflecting on overall key learnings and plans for further practice development was submitted. All LADs were analysed for reflexivity by participants, and its use as a reflexive tool within the course.

### Results

Analysis found that LADs provided a quick, accessible yet novel vehicle to engage with reflective practice. Participants were surprised at the ease and effectiveness of the tool considering the time commitment for each submission. Those who were active adversaries in peer-to-peer feedback, exhibited a rawness in their reflexivity, uncovering deep critical reflections about their future clinical supervision practices. Evident was the importance of trust and the power to harness and identify opportune moments to enhance their professional development in supervisory practice.

### Discussion

There is a need to continue using LADs for reflective practice within our course. Redesign including greater clarity of the tool and its benefits beyond the individual and their practice is needed. Through recognition of explicit, deep and thought-provoking reflexivity, participants are then positioned to deliver safe and effective healthcare outcomes. Evaluations of the long term benefits for our participants are unknown and underway.

### Development of a collaborative health workforce in Australia: results from a national study

**Meiklejohn S**<sup>1</sup>, Cardiff L<sup>2</sup>, Clark B<sup>2</sup>, Jolly B<sup>3</sup>, Gustavs J<sup>4</sup>, Maundu J<sup>2</sup>, Walters T<sup>4</sup>, Kent F<sup>5</sup>  
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#### Introduction/Background

Patient expectations in the Australian healthcare system are for coordinated, collaborative practice. There is a need for education institutions, health services and accreditation authorities to work together to achieve this goal. This research by the Health Professions Accreditation Collaborative (HPAC) Forum aimed to facilitate the development of collaborative practitioners through increased collaboration between accreditation authorities, health services and education providers. We sought to understand the contemporary expectations of collaborative practice within the contemporary Australian healthcare system (Kent et al., in press). This presentation will summarise the key findings from this national research and offer insights into the system level changes that need further consideration.

#### Methods

Nineteen focus groups were conducted in 2022 with 84 participants consisting of education providers (n=62), consumers (n=10), representatives from the Health Profession's Education Standing Group (n=8), and health service providers (n=4). Focus groups explored the views of consumers, health practitioners and educators regarding collaborative practice, interprofessional education and future practice needs. Framework analysis was conducted to ensure consistency across the data set and elicit opportunities for secondary analysis according to Bolman and Deal's domains of organisational practice, to assist a re-imagining of collaborative practice in Australia.

#### Results

Patient expectations are strongly united for re-focusing healthcare on themselves and their family and community. A shared interprofessional competency framework would assist all stakeholders work toward this aspiration. There are hierarchy, structural and political systems in the Australian healthcare system which prevent the enactment of collaborative practice.

#### Discussion

Interprofessional education in higher education has made progress in Australia in recent years, but there are limitations in practice that prevent the enactment of collaborative practice. There is a need for increased focus on workplace learning and for accreditation organisations to consider the broader assessment of interprofessional learning.

#### References

*Fiona Kent, Lynda Cardiff, Bronwyn Clark, Julie Gustavs, Brian Jolly, Josephine Maundu, Glenys Wilkinson, Sarah Meiklejohn (in press) Facilitating the development of collaborative practice in the Australian healthcare system (in press). Journal of Interprofessional Practice.*

## Using a large-scale design to improve feasibility and effectiveness of interprofessional simulation in university faculties

**Dougherty J<sup>1</sup>, Pearce T<sup>1</sup>**, Van Diggele C<sup>1</sup>, Nicholson M<sup>1</sup>, Fairbrother M<sup>1</sup>, Darwell C<sup>1</sup>, Wong H<sup>1</sup>, McKenzie S<sup>1</sup>, Brunner M<sup>1</sup>, Taoube L<sup>1</sup>, Jimenez Y<sup>1</sup>, Gray F<sup>1</sup>, Brentnall J<sup>1</sup>, Wang B<sup>1</sup>, Bloomfield J<sup>1</sup>, Blackford J<sup>1</sup>

<sup>1</sup>University Of Sydney

### Introduction/Background

Interprofessional simulation (IPS) activities have been evidenced to improve student learning outcomes in interprofessional practice and patient care. However, IPS has been acknowledged as challenging to implement due to significant financial, resource, scheduling and time burdens associated with running multiple simulations to capture all students. Large-scale, IPS scenarios may be one approach to address these barriers. Here, a small group of students actively participate in the scenario while a larger number of students (e.g. 50- 200 students) collaboratively observe and participate in associated learning activities either face-to-face (e.g. via footage live streamed into a lecture/tutorial area) or online. Recent evidence supports the use of online platforms<sup>1</sup> and the 'observer' role<sup>2</sup> in simulation-based education, but there are currently no studies which examine the use of large-scale IPS scenarios in interprofessional learning. This study seeks to explore the feasibility of this approach as well as the experiences of 'active' and 'observer' participants. How students apply their learning in their future clinical practice will also be investigated.

### Methods

Using an interpretivist, phenomenology approach, we intend to recruit students from multiple health disciplines participating in mandatory, large-scale, IPS scenarios at the University of Sydney. Students will respond to a post-simulation questionnaire and participate in post-simulation and post-placement focus groups or interviews. Study design will draw from experiential and social cognitive learning theories.

### Results/Evaluation

Quantitative questionnaire data will be descriptively analysed. Qualitative data will be thematically analysed.

### Discussion

Research outcomes could potentially change the delivery of IPS in health professions University faculties to increase reach and address known barriers. Additionally, IPS delivered online could provide a preferable alternative for students to attending additional face-to-face tasks. Pilot evaluation has shown positive student learning, engagement, and satisfaction. Further evaluation will clarify student's experiences and how they apply their learning to clinical practice and ongoing patient care.

### References

<sup>1</sup>O'Rae, A., Ferreira, C., Hnatyshyn, T. & Krut, B. (2021). Family nursing tele-simulation: Teaching therapeutic communication in an authentic way. *Teaching and Learning in Nursing*, 16, 404- 409. <https://doi.org/10.1016/j.teln.2021.06.013>

<sup>2</sup>Bates, T., Moore, L., Greene, D. & Cranford, J. (2019). Comparing outcomes of active student and observer roles in nursing simulation. *Nurse Education*, 44(4), 216-221. <https://doi.org/10.1097/NNE.0000000000000603>

## Critical reflection revealed through “PhotoVoice”. An evaluation of the rural health interprofessional programme “PhotoVoice” project

**Eggleton K<sup>1</sup>**

<sup>1</sup>*University of Auckland*

### **Introduction/Background**

Rural health interprofessional programmes offer students an opportunity to critically reflect on their experiences in the context of an often unfamiliar environment and in the context of conversations with other students from diverse professional backgrounds. These conversations are likely to create dissonance and restructuring and refining of learning. In order to encourage critical reflection the University of Auckland has established an ethnographic reflection project using “PhotoVoice” methods. The objective of this presentation is to highlight early results from an in-progress evaluation of the project.

### **Methods**

“PhotoVoice” is a method in which photographs are taken of scenes and objects by participants that evoke meaning and discussed. This evaluation involves analysing group discussions that arise from a “PhotoVoice” project. In the project students present photographs relating to the learning outcomes of the interprofessional programmes. A presentation is held at the end of each cycle of the programme in which students are asked to respond to their photographs. Prompts include describing their photographs, asking how does the photograph relate to their lives, why does the situation exist and what can be done about it, how does it relate to the learning outcomes? The audience for the presentations includes community members, clinical staff and academic teachers. The evaluation is informed by a visual methodology and includes the ethnographic observations that arise from the sharing and presenting of photos. The wider group discussion is audiorecorded, transcribed and an inductive thematic analysis of the transcriptions undertaken.

### **Results/Evaluation**

Data presented will include tentative themes, supporting quotes and photographs that are derived from the presentation and discussion.

### **Discussion**

“PhotoVoice” potentially provides an opportunity for students to critically reflect on issues that they encounter in a rural health interprofessional setting. This exploratory research will explore the reflections that arise from a creative process.

# Deliberative conversations: How students experience and participate in collaborative decision-making in clinical workplaces

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<sup>1</sup>University of Otago, <sup>2</sup>University of Sydney

## Introduction/Background

Collaborative decision-making among health professionals is at the heart of interprofessional practice. Students are expected to understand and master this process during undergraduate and postgraduate education. Learning opportunities to foster collaborative decision-making skills have been studied in classroom and simulation settings where formal instructional methods are predominant. There is room to explore learning in clinical workplaces where their complexity confers rich informal and opportunistic learning opportunities. Therefore, the aim of this study is to examine how undergraduate health professional students experience making collaborative decisions with other health professionals in clinical workplaces.

## Methods

The Theory of Practice Architectures<sup>1</sup>, enriched with the concept of Legitimate Peripheral Participation<sup>2</sup>, informed the design, conduct, and analysis of one-to-one interviews with 15 final-year health professional students from medicine, nursing, and physiotherapy. Interviews were analysed using a reflexive thematic approach.

## Results

Collaborative decision-making was experienced as deliberative conversations where clinicians engaged in a bidirectional discussion to weigh up options and alternatives, before deciding on the best-way forward. Collaborative decision-making was also experienced as information exchange where clinicians shared information in a unidirectional manner. Students participated variably in deliberative conversations ranging from unprompted observation to active contribution and requested more support to make sense of their experiences. Participation was influenced by conditions in the clinical workplace such as the interprofessional culture, workplace structures, and expectations about students' roles and contributions.

## Discussion

Deliberative conversations may be a useful non-discipline specific way to describe collaborative decision-making to health professional students. We suggest students participate in deliberative conversations fluidly, moving between being an observer and an active participator depending on the landscape of the clinical workplace. These insights can be used by educators to forecast locations and times when student may experience deliberative conversations and to guide students to engage with these learning opportunities fluidly.

## References

1. Kemmis S. A Practice Sensibility. An Invitation to the Theory of Practice Architectures. Springer; 2019.
2. Lave J, Wenger E. Situated learning: Legitimate peripheral participation. Cambridge University Press; 1991.

## The Sydney Solution Sprint: Generative AI & Interprofessional education

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### Introduction/Background

Social interdependence is an underlying mechanism for successful teambuilding in interprofessional education (Shimizu et al, 2022). Traditional interprofessional learning activities in healthcare disciplines require the contribution of domain-specific skills and knowledge to “learn about, from and with each other” (WHO, 2010). Learning activities that do not have a strictly defined process or outcome are hypothesized to enhance teamwork via increased social interdependence. The project aim was to pilot an introductory unstructured interprofessional activity to encourage teamwork for innovation.

### Methods

Interprofessional student teams were required to develop and present a 3-minute creative pitch on their vision of healthcare for the next decade with the rise of artificial intelligence. Students were provided 45 minutes to develop their pitch and encouraged to use generative AI. The presentation mode was deliberately unstructured to further facilitate social interdependence. Presentations were judged by a group of health professionals, an academic and consumer using a set rubric.

### Results/Evaluation

In July 2023, 44 students, across twelve health-related disciplines, spanning years 1 through 5 of their curricula, participated in the inaugural Sydney Solution Sprint at Concord Repatriation Hospital. In six teams, the students presented their solution to a clinical audience, using the following formats: poetry, news report, theatre skit, video, academic presentation, and product advertisement. Two teams were awarded winners by the judging panel and audience choice. The event was well received and in 2024, the Sydney Solution Sprint will be expanded to two additional hospitals.

### Discussion

The opportunity for students to work together on a creative, unstructured, dynamic activity affords a learning experience that promotes social interdependence. Such activities are well received by students and have potential to be implemented across any stage of health curricula. They are also resource-efficient and scalable. Such activities also address many of the historical logistical challenges inherent with interprofessional education.

### References

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World Health Organization. Framework for action on interprofessional education and collaborative practice. World Health Organization; 2010.

### Student Perspectives about sustainability teaching in Medicine

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#### **Background:**

The urgency of climate change as a health emergency is underscored by its impact on global well-being. The healthcare sector, a major contributor to carbon emissions, necessitates transformative action. In Australia, healthcare accounts for 7% of carbon emissions but sustainability in healthcare is commonly omitted from curricula. Beginning with Year 1 in 2022, we progressively integrated sustainability teaching into our medical curriculum through an infusion approach, where bite-sized amounts of content were integrated throughout the program. We explored student perceptions of sustainability teaching in health and recommendations for curricular development.

#### **Methods:**

We employed a mixed methods design with Year 1 students through a fixed-response survey (December 2022) and nine focus groups of 2-8 students across five sites (October 2022-March 2023). Survey data were analysed using descriptive statistics. Qualitative data were analysed using inductive thematic analysis.<sup>1</sup>

#### **Results:**

The survey was completed by 202/267 students (76%); 23 participated in focus groups. 83% students agreed/strongly agreed that their understanding of sustainability increased and 70% agreed/strongly agreed that their interest in sustainability increased through the sustainability curriculum. In focus groups, students reflected on personal values and goals regarding climate change and its effects in broader society, and future actions as health professionals. They supported the infusion approach to teaching and recommended more visually appealing content to engage the cohort.

#### **Discussion:**

Student perspectives about sustainability in healthcare encompassed local impacts and awareness of healthcare's carbon emissions. Students would like more sustainability content, and are motivated to equip themselves with the knowledge necessary to lead sustainability efforts across varying healthcare contexts. Their recommendations about curricular approach and content reflects a discerning engagement, furthering the cause by identifying challenges and solutions.

#### **Conclusion:**

The synthesis of student perspectives underscores the curriculum's significance in fostering awareness, responsibility, and a proactive stance to induce change within the healthcare sector.

#### **References:**

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## Increasing the rural and regional General Practitioner workforce through integrated training pathways.

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### Introduction

Regional Australia is challenged with an increasing undersupply of General Practitioners (GPs). Increasing rates of retirement place further strains on this workforce, with predictions estimating 52% of GPs in remote areas intend on retiring within 10 years.<sup>1</sup> Predictions indicate there will be a GP shortfall in Australia of 11,500 full-time equivalent by 2032, with regional areas expected to experience higher rates of shortfall than urban areas.<sup>1</sup> Over the last two decades a number of educational strategies for successful recruitment and retention of a skilled rural medical workforce have been described in the literature and the Australian Government's has invested substantially in rural medical education programs to strengthen the rural medical workforce uptake and retention.<sup>2</sup>

However, the increasing workforce shortfall indicates that research into GP workforce recruitment and retention, particularly around regional workforce supply, is urgently needed. As an Island state, classified as regional, Tasmania is uniquely positioned to evaluate its GP training pathway. This project, funded by RACGP, and evaluates the GP training pathway for vertical and horizontal integration and will develop principles to guide integrated pathway design.

### Methods

The project comprises three phases to determine what an integrated GP training pathway entails; a scoping review using Arksey and O'Malley's methodological framework, development of a framework to evaluate the current Tasmanian pathway, and developing design principles for integrated pathways. The project will survey pathway stakeholders and users for their feedback about the current pathway. The feedback data will inform the proposed principles for an integrated pathway.

### Evaluation

This presentation discusses insights from phase 1 of the study, including the scoping review, mapping of the Tasmanian pathway, and proposed evaluation framework.

### Discussion

Horizontally and vertically integrated pathways that support graduates from diverse backgrounds will be more attractive to future GPs and support future workforce development and retention.

### References

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2. McGrail MR, O'Sullivan BG, Russell DJ, Rahman M. Exploring preference for, and uptake of, rural medical internships, a key issue for supporting rural training pathways. BMC Health Services Research. 2020;29(930). Available from: <https://doi.org/10.1186/s12913-020-05779-1>

# Health literacy educational interventions in medical school curricula: A scoping review

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## **Introduction/Background**

Health literacy has emerged as a critical determinant of health with increasing prominence since the start of the COVID-19 pandemic. Global health organizations, governments and policymakers recognize the need for a multi-pronged approach to mitigating the impacts of inadequate health literacy, including organizational or systemic methods. The embedding of health literacy education within health professional curricula is one strategy which has been proposed to deliver a 'health-literate' workforce to the community. The aim of this scoping review is to identify existing health literacy educational interventions in medical school curricula.

## **Methods**

A structured scoping review methodology was adopted, based on the stages outlined by Arksey and O'Malley with article analysis influenced by Webster and Watson's concept matrix and the PRISMA-ScR guidelines for reporting scoping reviews. The search strategy was developed in collaboration with a medical research librarian. A search of electronic databases (Proquest, Pubmed, Cinahl, Social Sciences Citation Index, Embase) between 1998 – 2023 was performed. Covidence™ software was utilized for throughout the review. Key literature reviews were also hand searched. Search validity was ensured by cross-referencing search terms with known key articles and journals.

## **Results/Evaluation**

Electronic database search resulted in 970 articles identified for screening with 377 duplicates removed. Both authors screened the remaining 593 articles by title and abstract and conflicts were resolved. Fifty-eight (58) articles have been identified for full text screening. Analysis of results, discussion and conclusions will be presented at the ANZAHPE conference 2024.

## **Discussion**

The researchers expect that this review will identify a range of health literacy educational interventions in medical school curricula. Pedagogical strengths, implementation challenges and outcomes of these interventions will be discussed at the ANZAHPE conference. We anticipate that the results of this literature review will increase awareness of the need for health literacy education, inform health literacy curriculum development and promote collaboration within the sector.

## Leadership in Health Professions Education: Assessing leadership competencies in Australasian public health programs

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### **Introduction/Background:**

Leadership skills are increasingly recognised as vital competencies for health professionals including nurses, psychologists, allied health and public health professionals. Many health professionals end up in leadership positions without the necessary management and leadership skills, often to their own detriment, and to the detriment of the people, they are leading. Despite their importance, there remains a gap in understanding the extent to which leadership competencies are integrated into health professions education.

As part of this study, researchers from Monash University and the University of Melbourne have collaborated to assess the current public health curricula, conduct gaps analysis in leadership education and evaluate the alignment of leadership skills taught in Australasian universities with best practice standards, both nationally and internationally.

### **Methods:**

This study employs a mixed-methods approach, anchoring its foundation on the public health leadership assessment tool (Moodie, 2016) as well as the public health competencies framework (CAPHIA, 2016). We are currently undertaking a detailed examination of course learning outcomes spanning several public health programs to establish our understanding of the inclusion and depth of leadership skills training. The results will be evaluated to assess their alignment with the best practice standards and to identify any existing gaps in leadership training within the current curricula.

### **Results/Evaluation:**

Preliminary findings suggest a varied integration of leadership competencies across programs, with some institutions emphasising leadership skills more than others. Specific gaps were identified in areas such as interdisciplinary collaboration, ethical leadership, and adaptability to change. Comparison with international counterparts and domestic business courses (MBAs for example) highlights potential gaps in leadership education within Australasian public health programs.

### **Discussion/Implication for Practice:**

Our research highlights potential gaps in leadership training including inadequate coverage of important leadership competencies within the health professions curricula. Enhancing curriculum design to integrate adequate leadership training can foster a health workforce capable of leading innovative health initiatives and reforms. The findings and lessons learnt from this project will be transferable to other health professions education courses across Australasia.

**Keywords:** Health professions education, leadership training, public health curriculum, health workforce development

## Palliative care education in an Australian undergraduate pharmacy curriculum: An exploratory descriptive study

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### Introduction/Background

Pharmacists play a valuable role in the multidisciplinary palliative care team. However, despite acknowledging the importance of importance of learning more about palliative care, pharmacists have rated their own knowledge of palliative care topics as poor. This study aimed to examine the self-perceived knowledge, confidence and preparedness of undergraduate pharmacy students to provide palliative care.

### Methods

A descriptive exploratory analysis was conducted in 2021 at an Australian university involving final-year pharmacy students (n=200) who completed a survey on self-perceived knowledge, confidence and preparedness overall and with respect to a range of graduate capabilities which are essential to provide care in the palliative settings. Key capability areas include communication, showing empathy, making clinical judgements and self-reflection. This was measured using the Palliative Care Curriculum For Undergraduate (PCC4U) Questionnaire which was distributed electronically. Descriptive statistics was undertaken and Mann-Whitney U tests were used to explore any differences in outcomes with respect to factors related to demographics, personal experience and education. Thematic analysis was utilised for qualitative data.

### Results/Evaluation

Forty-five percent of the student cohort (n=89) responded, 70% of whom were female, and the median age for students was 22 years. Median scores (IQR) were modest for overall self-perceived knowledge: 5.0 (3.0-5.0), confidence: 4.0 (3.0-5.0) and preparedness: 4.0 (2.5-5.0). Students who had participated in learning about palliative care through clinical placements (n=25, 28%), self-directed learning activities (n=18, 20%), or case-/problem-based learning (n=14, 16%) demonstrated a statistically significant increase in overall preparedness (p=.017), confidence with specific capabilities including evidence-based practice (p=.013), responding to medication queries (p<0.05) and managing symptoms other than pain (p=.018).

### Discussion

Findings suggest students were confident to manage symptoms and medication related issues but less confident to address distress or discuss sensitive matters with patients and their families. This suggests a need for greater exposure and practical experience in palliative care settings.

## When one size does not fit all: creative enablers to achieve diversity, equity and inclusion in health professional education

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### Introduction

The ANZAHPE Diversity, Equity and Inclusion (DEI) subcommittee was developed to promote accessible and equitable enactment of DEI principles in health professional education (HPE) programs across Australia and New Zealand. This initiative is designed to benefit the organisation and the broader community, particularly people with identities that have been historically and systemically marginalised..

Thinking critically about our educational practice is necessary to ensure safe learning environments and promote equitable practices. Many health professional educators role model and innovate their teaching practices with DEI in mind; some of these are documented while other innovations may not have been shared widely. Led by the ANZAHPE DEI Sub-Committee, this PeArLS session will provide the opportunity to showcase a range of creative enablers currently practiced by health professional educators across diverse HPE settings to achieve DEI objectives.

### Methods

The PeArLS session will serve as a platform for participants to develop insights regarding DEI practice, sharing experiences of challenges and successful strategies. This interactive dialogue aims to benefit participants by fostering connections, facilitating the creation of a community of practice, and developing a repository of creative solutions. The insights gained from this session will not only contribute to the collective participant knowledge base but will also inform future DEI initiatives for the ANZAHPE community.

### Results/Evaluation

We will conduct a post-session evaluation to assess the effectiveness of the PeArLS session in promoting DEI in HPE, including assessing knowledge exchange, repository development, and perceived impact for future initiatives.

### Discussion

While DEI strategies in education have been disparate and inconsistent, there is a growing momentum to encourage discussions and sharing of these practices. Collecting diverse adaptable examples during this session provides a foundation for advancing effective DEI practices in Australia and New Zealand, aligning with calls from professional bodies for equitable approaches in HPE.

## Student Exemptions for Distant Clinical Rotations – setting firm criteria while considering EDI

**Grose L<sup>1</sup>**

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### **Introduction/Background**

Students who enrol in the Joint Medical Program (UON + UNE) are required to attend 1 year of the 5-year program at a rural clinical school location.

Compulsory rural placements are clearly stipulated in enrolment applications and only students who meet our current clinical school exemption criteria are eligible to be located metro for the entirety of their degree. Our current exemption criteria are for primary carers and students with complex health conditions that require regular treatment only available in a major city.

Most of the student applications in 2022 and 2023 were for compelling reasons that do not fit into the current criteria such as caring for close family member and complex mental health issues. We are looking to update and broaden our criteria in 2024 to promote equity, diversity, and inclusion for all students at all clinical sites. We would also like to ensure the criteria is robust and only encourages genuine students to apply. Rural clinical school student capacity numbers/funding needs to be considered while ensuring the promotion/experience of rural practice amongst the student group.

### **Methods**

Updates will be carefully deliberated with the student group and wellbeing advocates. The amount of applications received, processing time, applications rejected, student complaints and rural placements will be compared between the old strict criteria and new more inclusive criteria.

### **Results**

If successful in creating a robust and inclusive criterion, we would expect to see a reduction in processing time per application, less applications rejected, less student complaints and a stable amount of successfully completed rural student placements.

### **Issues/Questions for exploration OR Ideas for discussion**

Should all Australian Healthcare students be required to experience a rural placement? If so why?

What are the current criteria of your healthcare placements? Are any students exempt from attending locations away from their home?

Keeping an EDI lens, what criteria should be considered when assessing individual student circumstances to allocate to distant placements?

What allowances could be made for financial, wellbeing and employment factors?

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### Why do they teach? Exploring medical students' motivations to undertake a medical education elective

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#### Introduction/Background

Sustainable medical education and training relies on the often voluntary teaching contributions of clinicians. Recognising this, teaching skills are increasingly being incorporated into medical graduate competencies. Indeed, a recent update to the Australian Medical Council Accreditation Standards specifically highlights the need for graduates to be able to apply near-peer teaching principles<sup>1</sup>. Peer-assisted learning, or near-peer teaching programs, offer a means through which to address these competencies. Whilst the benefits of such programs are evident from both learner and teacher perspectives, the motivations to participate in such initiatives and the relevance of participation for learners' own training are less clear.

#### Methods

This exploratory qualitative study examined the motivations of nine final year undergraduate medical students to undertake a medical education elective with a structured experiential near-peer teaching component. Data were collected using individual semi-structured interviews and analysed using inductive thematic analysis.

#### Results/Evaluation

Three themes were developed from the analysis, identified as motivating factors: positive prior experiences with peer-assisted learning; an altruistic desire to contribute to the education of the next generation; and opportunities for self-development. Additionally, participants viewed teaching as essential to the role of a doctor. The study also prompted participants to seek further information regarding medical education career pathways.

#### Discussion

Students' motivations to engage in peer-assisted learning are informed by several factors that include benefits to both the self and others. Students felt the weight of responsibility for the learning of their near peers. This was evidenced by a degree of uncertainty regarding the sufficiency of their own knowledge, their skills in managing group dynamics, and apprehensions in adopting the teaching role.

Understanding students' motivations to engage in near-peer teaching programs can be used to drive student engagement, and mitigate any perceived barriers.

#### References

1. Australian Medical Council. Standards for Assessment and Accreditation of Primary Medical Programs by the AMC. 2023.

## Initiatives by a Clinical Education team to improve Radiography students' clinical placement experience

**Lee Y<sup>1</sup>**

<sup>1</sup>*Tan Tock Seng Hospital*

### **Introduction/Background**

Students' experience of clinical placements can have an impact on their confidence, competence and stress levels, which can ultimately affect their learning and development. In 2023, the Clinical Education team from Tan Tock Seng Hospital (TTSH) took steps to improve radiography students' clinical placement experience through implementation of a few initiatives. This study aims to discuss the rationale behind the initiatives, how they were implemented, their effectiveness in improving radiography students' clinical placement experience, and the considerations in implementing them.

### **Methods**

The initiatives implemented by the team were the introduction of a shared digital calendar in the form of Google calendar to help students keep track of important dates and events during their placement, meal gatherings where students and clinical educators (CEs) come together to share a meal to foster a sense of community and support for students, and a dedicated CE role in which CEs are free from clinical workload responsibilities to focus solely on clinical education. To determine the effectiveness of the initiatives in improving students' clinical placement experience, the team utilised the Overall Training Experience score gathered from the Ministry of Health (MOH) Student Feedback surveys. Scores from the 2022 and 2023 surveys were compared.

### **Results/Evaluation**

The score reported by students in 2023 was 3.90, an increase from the 3.75 score reported in 2022, suggesting students' clinical placement experience in TTSH have improved after implementation of the initiatives.

### **Discussion**

The increase in score from 2022 to 2023 suggests the initiatives implemented have played a role in improving students' clinical placement experience. However, the use of a single score indicator may not have been sufficient in providing a comprehensive evaluation of the effectiveness of the initiatives in improving students' experience. There are also considerations when implementing these initiatives such as the requirement of students having wireless connectivity in order to access a shared digital calendar, concerns around unprofessional use of smartphone technology during clinical placements, the need to balance and maintain a professional boundary between students and CEs, professional development of CEs, and organisational support for the dedicated CE role.

## A realist evaluation of a culturally-tailored internship program for Nutrition and Dietetics international students

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### **Introduction/Background**

Asian learners from Confucian-heritage classroom often find Australian mode of teaching foreign and misaligned with their cultural step-wise process of learning. They could present to be quiet, passive and reluctant to participate. A 5-week culturally-tailored on-campus internship program was developed and piloted with international students in Monash Nutrition programs to support acculturation. Program design was underpinned by Confucian cultural process of learning with incorporation of culturally-specific strategies to promote peer interactions and learning. A total of 76 nutrition and dietetics students of diverse cultural backgrounds and across five year-levels participated in the internship program, and involved in active and collective problem-solving nutrition issues. After three programs, the internship program was evaluated qualitatively.

### **Methods**

A realist evaluation of 17 interviews with student-participants was employed to build and refine the Context-Mechanism-Outcome configurations (CMOs). A socio-cultural perspective on learning was adopted, and ethnographic methods, including interviews and facilitator-reflection, were used.

### **Results**

The internship created a psychologically safe classroom for international students to contribute and participate in discussions, speak publicly and take on leadership roles, building self-confidence and skills for active learning. Working together towards a shared purpose for the internship projects aligned with Asian culture of collectivism and pragmatism. It facilitated a culture of family-like support with senior students role modelling professional behaviours and sibling-like caring relationships that extended beyond the program. Finally sharing cultural knowledge and acculturation tips with one another was empowering and promoted cross-cultural communication.

### **Discussion**

While universities have international student support services to promote acculturation to Australian learning environment and enhance learning experience, a culturally tailored approach may be necessary. An international-students-specific internship program could facilitate development of active learning and communication skills, and a sense of belonging for those learning in a foreign land.

## Students as Peer Coaches of Clinical Skills

**Kareem Iposu<sup>1</sup>**, Connor Tarrant<sup>1</sup>, Scott Hallman<sup>1</sup>, Dale Sheehan<sup>1</sup>, Lutz Beckert<sup>1</sup>

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### Introduction/Background

Near Peer teaching is embedded in medical education as a useful learning tool. It is frequently developed to support academic work; here we present the use of near-peer teaching to revise clinical skills.

This presentation shares the development and refinement of a peer coaching programme introduced in 2021. The program aimed to nurture 4th-year students to revise clinical examination skills. Revision of clinical examination skills was achieved by pairing a 4th-year student (student-learner) with a 5th or 6th-year student (student-coach). We expect this programme will also improve the clinical skills and develop the teaching skills of student coaches.

### Methods

A weekly email matches a student-learner with a student-coach and suggests a clinical examination skill to be revised. Revision topics are generated from a predetermined list of skills. The student-learner approaches the student-coach and arranges a mutually agreeable time. The student-coach finds a suitable patient for their learner to practice the clinical examination skill. The examination takes 15-20 minutes, then the student-coach provides feedback.

### Results/Evaluation

Following the session, both parties have the option of providing feedback via a link in the weekly email.

The feedback is used formatively to improve the sessions and ensure we cater for the learner's needs. Based on the feedback from 2023, we purchased sets of neurological equipment, which students used to aid in learning and coaching. The matching process and skills lists have been adjusted to ensure the success of this programme. By July, we will have trialled and evaluated this programme further, and we will present our findings and share our experiences.

### Discussion

The discussion will focus on process, sustainability, and learning outcomes for both student learners and student coaches. Tips and strategies for implementation will be shared in this student-led presentation.

### References

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## Lessons learned from Public Health students' reflections about online, asynchronous tutorials

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### Introduction/background

Online learning is defined as remote or distance education involving the internet. Covid-19 has emphasised the need for effective online teaching methods. Asynchronous online tutorials, whereby students discuss cases/questions in online forums over a defined period, have been developed in a university postgraduate public health program to build an engaging online learning community. The aim of this study was to explore public health student experiences of engaging in this learning modality.

### Methods

We conducted a focus group with ten participants, as well as six individual interviews with students about participating in online asynchronous tutorials. Discussion prompts were developed by analysing critical reflections from previous students, together with analysis of themes identified from relevant literature. We conducted a thematic analysis of focus group and interview material.

### Results

Study participants' experiences can be summarised with the following themes: 'Learning community', 'Teacher-presence' and 'peer learning/mentoring'. Factors affecting these themes were an appreciation of the asynchronous tutorials' practical orientation, flexibility, and adaptability to student needs, as well as the continuous integration of learning with assessment and feedback. Students expressed a dissatisfaction with mechanistic learning/assessment tasks, preferring a looser approach to process and greater emphasis on meaning. Students valued moderation that was pragmatic, forgiving and considerate.

### Discussion

'Teacher-presence' (Stone, 2017), a sense that students are mentored and cared for by the instructor in a meaningful and relational way, was valued by students. Also valued were the related values of belonging to a learning community and meaningful peer interaction (Koo & Cowie, 2020). Flexible, adaptable and relational/collegial approaches to online learning enabled students to feel more confident collaborating in the 'virtual classroom'. They also valued discussions unconstrained by prescriptive rules about word counts, timing of engagement and referencing.

### References

Khoo, Elaine, & Cowie, Bronwen. (2020). A framework for developing and implementing an online learning community. *Journal of Open, Flexible, and Distance Learning*, 24(1), 47–59.

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Over the rainbow - skies aren't blue!

Medical student experiences of LGBTQIASB+ content in the curriculum and microaggressions in the clinical workplace

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### **Introduction/Background**

Previous feedback from medical students to Faculty highlight some concerns about LGBTQIASB+ content in the curriculum and how LGBTQIASB+ patients, students or staff are treated and/or spoken about in clinical environments. This project aims to better understand the lived experience of students in educational settings and on clinical placement.

### **Methods**

Medical students at The University of Queensland were invited to complete an anonymous survey and participate in student-led focus groups to reflect on LGBTQIASB+ health content in the medical program and identify challenges, microaggressions, concerning behaviour or communication directed to members of the LGBTQIASB+ community as experienced or observed by students.

### **Results/Evaluation**

61 students completed and an additional 21 students partially completed the survey. Approximately 50% of respondents identified as members of the LGBTQIASB+ community. Close to a quarter of respondents had observed LGBTQIASB+ microaggressions directed toward patients and almost 38% had experienced or observed microaggressions about LGBTQIASB+ people. Over 20% of students experienced or observed patients engaging in microaggressions toward LGBTQIASB+ students, patients or staff during clinical consultations and views regarding whether clinicians responded appropriately in these scenarios were polarised. Analysis of qualitative survey comments and transcripts of focus groups is continuing. Initial themes include a need for integration of LGBTQIASB+ health across the medical curriculum and an improved understanding of pronouns and gender identity. Transphobia, power imbalance and hierarchy, and knowledge gaps were identified as significant barriers to inclusive education settings and workplace culture.

### **Discussion**

Deficiencies and problems with LGBTQIASB+ health education content will be described. Types of LGBTQIASB+ microaggressions, contexts where microaggressions are more evident, student experiences and perspectives of microaggressions, factors influencing student responses to microaggressions and student suggestions for potential strategies to respond to and prevent microaggressions will be discussed.

## Students as Change Agents: exploring student-initiated conversations about low value care on clinical placement

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### Introduction/Background

Healthcare students on placement are likely to observe practice considered low-value care (LVC). Students may be reticent to question why these practices occur on placement, due to inherent power imbalances in the student-educator relationship and the high-stakes nature of clinical placement assessments. This study builds on a previous study exploring educator experiences of students on clinical practice challenging the educator's practice<sup>a</sup>. This study aims to explore healthcare professional student experiences observing low-value care on clinical placement and how (or if) they initiated conversations with clinical educators about their observations. This study also explores student perspectives on training in conversations to question practices seen on placement.

### Methods

Descriptive qualitative study using a phenomenological approach from a critical perspective. Data collection is complete with 36 students studying 10 health-professions interviewed. Data is being analysed using team-based framework analysis which includes 5-stages 1) familiarisation, 2) building a thematic framework, 3) indexing, 4) description and 5) mapping.

### Results/Evaluation

The analysis framework has organised coding into six categories: what students think and believe about LVC in the context of clinical placement, how students feel when they witness LVC, how students think and feel about speaking up when they witness LVC, what influences students to respond to LVC, student perceptions of educator recommendation about how to talk about LVC on placement and student perceptions of training needs related to LVC conversations. Data will be indexed, described and mapped for presentation in July 2024.

### Discussion

Prior work from our research group has found that strategies intended to empower students to adopt the role of change agents did not achieve intended outcomes<sup>b</sup>. The results of this study will contribute to an understanding of how dynamics that may detract from students playing an active role in challenging low-value care can be influenced in the clinical placement environment.

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## Developing a culturally responsive physiotherapy curricula

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### Introduction/Background

Australian accreditation standards require the inclusion of First Nations cultural safety within health profession curricula. Therefore, integrating First Nations Ways of Knowing, Doing and Being into tertiary health programs is essential.<sup>1</sup> In 2022, the Griffith University Physiotherapy program established a Deadly Physiotherapy working group to initiate meaningful, incremental, and sustainable improvements by integrating these principles within a cultural competency framework.

### Methods

The working group aim to increase: 1) staff skills and competencies; 2) First Nations Ways of Knowing into curricula, and 3) First Nations student support. Using a Partnership Pedagogy, a cultural competency framework will be developed and scaffolded across an entry-level physiotherapy program<sup>1,2</sup>. The framework consists of three dimensions; 1) awareness, 2) safety and knowledge, and 3) advocacy.

### Results

The Deadly Physiotherapy working group consists of 10 members, including two First Nations academics. All Physiotherapy staff (18/18) completed cultural awareness training and curricula mapping, addressing the first aim. The second aim was partially addressed in 2023 by initiating two dimensions of the cultural competency framework. 144 first-year students completed Cultural Awareness activities and 86 third-year students completed 'Communication and Social Determinants of Health' and 'Positions of Privilege' activities co-taught by First Nations academics. The third aim was addressed by implementing a mentor program for First Nations students. Since its implementation, 85% of First Nations students have engaged in the mentorship program and 100% of students have been retained in the program.

### Discussion

The Deadly Physiotherapy working group will continue to scaffold cultural competency into curricula and strengthen existing Cultural Awareness activities with 165 first-year students enrolled to participate. Additional cultural safety and practice activities will be developed for second- and third-year students, while cultural advocacy elements will be introduced to fourth-year students in 2024-2026.

**Questions for exploration** What strategies do other Universities use to implement cultural competency curricula?

### References

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2. Krathwohl, D. (2002). A Revision of Bloom's Taxonomy: An Overview, *Theory into Practice*, 41(4), 212-218.

## More than a Status Symbol? Pakistani Medical Schools Leaders' Perceptions of the World Federation for Medical Education Recognition Programme

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### **Background:**

Regulation of medical schools has long been an area of debate, with little empirical evidence to guide any particular model or practice. In recent years, this debate has gathered national and international momentum due to new policies such as the World Federation for Medical Education (WFME) recognition programme for medical accreditation agencies in 2012 that has been linked to migratory opportunities for postgraduate medical training in the United States. This programme has created panic and uncertainty in countries that send a high number of medical graduates to the United States, including Pakistan. This study aims to explore the understanding that senior leaders of Pakistani medical schools have regarding the WFME recognition programme and WFME more broadly.

### **Methods:**

the study was carried out in Pakistan in 2023. Participants included a sample of senior leaders from the 167 public and private medical colleges in the four provinces of Pakistan. Stratified purposive sampling led to semi-structured interviews with 13 leaders (deans and principals) using an interview guide, developed following AMEE Guide 87<sup>1</sup>. The interviews were transcribed, member-checked and analysed using guidelines by Terry et al<sup>2</sup>. An audit trail and a reflective log was maintained throughout this study.

Results: Four themes were identified: Jump on the bandwagon; Don't miss the boat; Elephant in the room and; Any publicity is good publicity

### **Discussion:**

Senior medical education leaders in Pakistan have many misperceptions about the moral and legal mandate of the WFME recognition program, especially related to the linked policy of the Educational Commission for Foreign Medical Graduates, which is perceived as a ban on IMGs to the United States. WFME recognition is seen as a status symbol driving economic forces, especially in the private sector, to lobby for it, at the expense of addressing necessary reforms that are contextually relevant.

### **References:**

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### Exploring why we learn from failure

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#### **Introduction/Background**

John Dewey wrote that “the origin of thinking is some perplexity, confusion, or doubt.” In healthcare education, uncertainty is not only present during initial learning, but continues as learners figure out how to solve clinical dilemmas. Many educators tend to use instructional methodologies which give learners the answer quickly, perhaps before they have begun to understand the problem. This tendency might short-circuit opportunities to think about the conceptual aspects of the problem. Counterintuitively, the process of struggling in the form of cognitive incongruity may be a critical trigger for facilitating the development of reasoning skills.

Productive failure (PF) is an instructional approach that requires learners to struggle as they attempt to generate solutions to complex problems before receiving instruction. PF has been shown to prepare students for later learning of new, related knowledge.

This study compared the effectiveness of PF with indirect failure (IF) on a preparation for future learning assessment, immediately after learning, and after a one-week delay.

#### **Methods**

Year one pharmacy students (N=42) were randomly assigned to a PF or IF learning condition. The problem of estimating renal function was described to participants in the PF learning condition, who were then asked to invent a solution. Participants in the IF condition learned about the same problem and were given incorrect solutions that other students had created, as well as the Cockcroft-Gault formula, and asked to compare and contrast the equations.

#### **Results/Evaluation**

Participants in the PF condition outperformed those in the IF condition, both on the immediate assessment, and after a one-week delay.

#### **Discussion**

These results emphasize the crucial role of struggle and generation in learning. When preparing novice students to learn new knowledge in the future, generating solutions to problems prior to instruction may be more effective than simply learning about someone else's failures.

## Global horizons in medical education: Establishing international clinical placements for comprehensive learning and collaboration in the Bond Medical Program

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### Introduction/Background

Many healthcare professional courses are moving towards systems of assessment, which may be programmatic, primarily designed to guide collaborative learning and to inform non-graded pass/fail decisions related to standards for competency. The potential benefits of these changes include improved learning and preparedness for learning in practice, improved rigour of pass/fail progression decisions, and promoting student collaboration and well-being (1,2).

At the same time prizes, scholarships and commendations are awarded. It is accepted that healthcare professionals should not be motivated by adulation associated with awards, but there are tangible benefits. Many are valued as they include financial assistance to support continued learning, and provide additional endorsed evidence of performance (other than 'non-graded pass') which may be used for, or even required for, subsequent applications.

Anecdotally, a solution used has been unpublished data on student performance, held 'in the background'. The storage and uses of such assessment data and student perceptions of potential uses are likely to undermine the potential benefits of collaborative learning for competency.

Lastly, it is not appropriate to use data from a system designed, implemented and assured for one set of purposes (to guide collaborative learning and inform pass/fail decisions of competency) to produce derived data for another set of purposes (to inform decisions on awards). Defending such data usage to the scrutiny of challenge could prove difficult.

### Methods

The attendees will discuss the place of awards and how the tangible benefits can be met. If we need a system separate to that related to learning for competency, how can the problems be mitigated? What should separate systems look like?

### Results

The session will provide a forum for sharing issues and solutions related to these challenges.

### Discussion

This problem is common to many courses and the discussions started in the session will help find solutions.

### References

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## Revitalizing biomedical practicals by cultivating curiosity to enhance the experience and engagement of medical students.

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### Introduction/Background

Launch of the new Bachelor of Medical Studies (BMedSt) at The University of Adelaide provided opportunity to reformat biomedical science practicals for medical students. Surveys and focus groups revealed student disengagement with practicals, with sessions perceived as being a “low-yield” adjunct to case-based learning. Practicals consisted of text-based worksheets and passive ‘show-and-tell’ demonstrations of cadaveric specimens with minimal active learning. Our aim was to improve student attendance, interaction and engagement whilst scaffolding learning<sup>1</sup> through ‘pre-practical’ and ‘in-lab practical’ experiences.

### Methods

Pre-practical lessons, delivered on an e-platform (*Lt Kuracloud*), contain videos that introduce the same specimens to be explored in-class, along with formative questions. This ‘priming’ approach has been implemented to reduce cognitive overload from “making sense” of a cadaveric specimen for the first time, facilitating specimen-familiarisation within a limited timeframe. In-lab practicals are also guided via *Lt*, which is used to prompt students to handle and orientate specimens, interpret medical images using a *SECTRA* table and approach demonstrators to resolve outstanding queries.

### Results/Evaluation

Since the reformat, attendance rates have increased (86% to 96%); more students attend for the entire session, with some staying longer to continue discussions. Satisfaction of course quality, as per student surveys, has increased from 88% to 94%. Satisfaction with digital resources increased from 86% to 94.5%. As further evidence of engagement, 97% and 91% of students accessed and interacted with pre-practical and practical lessons, respectively, compared to 77% previously.

### Discussion

Our new practicals are exploration-driven interactive experiences that provide haptic and kinaesthetic learning opportunities while utilising highly accessible educational technologies. The group discovery experience in each practical encourages vibrant dialogue between students and reinforces the importance of having a three-dimensional appreciation of the human body best-achieved through visuo-spatial learning. This approach has been successful and sustainable, and therefore is being adopted across the BMedSt program.

### References

1. Wojciech Pawlina, & Richard L. Drake. (2016). Authentic learning in anatomy: A primer on pragmatism: Authentic Learning in Anatomy. *Anatomical Sciences Education*, 9, 5–7. <https://doi.org/10.1002/ase.1592>

# Implementing programmatic assessment in first-year health professional program – A case study

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## **Introduction**

Competency-based education is a foundational framework for many health professional programs<sup>1</sup>. There is increasing evidence that a programme of assessment can more reliably and accurately determine a learner's competence<sup>1,2</sup>. This 'programmatic approach' to assessment has been rapidly adopted by many medical and health professions educational programs<sup>2</sup>. Longitudinal or continuous assessment is a key component of programmatic assessment. The implementation and feasibility of a longitudinal assessment strategy in two first-year functional anatomy and biomechanics subjects in an undergraduate physiotherapy program is explored.

## **Innovation**

The aim of longitudinal assessment was to develop clinical reasoning skills and competency in conducting clinical assessment techniques. The assessment comprised of two parts – weekly interactive online modules and clinical skills checklists. Each week, the students completed a case-based online module before attending their practical workshop. The modules were developed using Articulate 360 and deployed via the learning management system (Moodle). Students were asked to make clinical decisions as they navigated through the proposed scenario with customised feedback provided immediately. In the workshops, students learnt hands-on clinical assessment techniques and had opportunities to demonstrate competency to their tutors and receive feedback. Competency was assessed using a standardised rubric. All students were required to pass all clinical skills and complete the weekly online modules by the end of the semester. This longitudinal assessment contributed to 20% of the overall mark.

## **Evaluation**

In the first and second functional anatomy and biomechanics subjects the average completion rate for the online modules was 95% and 99% respectively; and 82% and 99.5% respectively for the skills checklist. Overall, feedback from the students was very positive.

## **Discussion**

The completion rate for longitudinal assessments was very high, which dealt with a common concern about students' engagement with online content. This approach reassured genuine engagement in learning. However, implementation was resource-intensive and required clear expectations and structure to maximise compliance.

## **References**

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## Guidelines for an online repository of Aboriginal and Torres Strait Islander health educational resources in optometry

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### Introduction/Background

Aboriginal and Torres Strait Islander health curriculum has recently been mandated in optometry programs. This study aimed to develop consensus-based guidelines for an online repository of Aboriginal and Torres Strait Islander health educational resources to support optometry educators.

### Methods

In a modified Delphi process, 31 educators and stakeholders involved in Aboriginal and Torres Strait Islander health education in optometry participated in up to three rounds of consensus-building over five months. The first two rounds comprised an online survey and the third, a video-conference workshop facilitated by an Aboriginal consultant and expert in the field. Initially, participants were asked to respond to 18 questions about the content, structure, maintenance and governance of a repository.

### Results/Evaluation

From the first round, 66 unique responses were collated. By the end of the third round, the responses were reduced and refined to eleven agreed recommendations. A key recommendation was that the structure of the repository should align with the 'Optometry Aboriginal and Torres Strait Islander Health Curriculum Framework'. To evaluate quality of resources, the 'AIATSIS Guide to Evaluating and Selecting Education Resources' was recommended. Although predominantly strengths-based resources involving Aboriginal and Torres Strait Islander peoples should be used, it was agreed that deficit-based resources could be important to include, provided the purpose is contextualised (e.g., to illustrate racism). It was recommended the governance group collectively comprise of Aboriginal and Torres Strait Islander members, and members with teaching skills and cultural safety training.

### Discussion

The process of non-Indigenous and Aboriginal and Torres Strait Islander educators and stakeholders working together, and prioritising Aboriginal and Torres Strait Islander voices, to develop consensus-based guidelines was critical in establishing trust, agreement and commitment. The guidelines will be useful for creating an online repository that can support optometry educators with access to high-quality Aboriginal and Torres Strait Islander health educational resources.

## Evaluating Childhood Obesity Education in Australian Medical Curricula: Towards a 'Gold Standard' Approach for Effective Training and Practice

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### Background

Childhood obesity (COB) is an increasing global health concern that presages adult obesity-related morbidity. However, evidence indicates a reluctance among primary health practitioners to broach COB topics with patients. We previously highlighted gaps in COB knowledge among medical students, prompting this evaluation of COB-related content in the current medicine curricula in five Australian medical schools and how this content compares to a “gold standard” curriculum.

### Methods

We conducted a document review of medical curricula to evaluate current COB teaching in five Australian medical schools. To define the 'gold standard,' an extensive literature review, surveys of individuals with lived experiences of obesity, and a modified Delphi survey of COB experts were conducted. A nominal group technique was employed to derive learning outcomes from the data comparing existing curricula against this standard.

### Results

While current medical curricula covered some content and knowledge areas, they lacked elements crucial for effective COB prevention, management, communication skills, counselling proficiency, and strategies to overcome barriers to change. The Delphi survey underscored the importance of communication, counselling, and management skills as core components of COB education. The lived experience survey emphasised education aimed at averting weight stigma and individual blame, highlighting the significance of communication skills. The main discrepancy between the curricula evaluation and these recommendations centred around inadequate focus on communication. We will present these data, and eight learning outcomes critical for inclusion in a “gold standard” COB curriculum.

### Discussion

We identified gaps in current medicine curricula related to treatment of COB; current curricula does not meet best practices and lacks consistency. Enhancing COB-related medical education could significantly address COB concerns, improving knowledge and confidence of practitioners in addressing these issues. By presenting evidence to medical schools highlighting these curriculum deficiencies and offering recommendations for incorporating these learning outcomes, reluctance to adapt may be mitigated.

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### More than a survey: A framework for evaluating intensive care medicine transition training

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#### **Introduction/Background**

The transition year (TY) is the final year of the intensive care medicine specialist training program delivered by the College of Intensive Care Medicine of Australia and New Zealand (CICM), which aims to support transition to specialist medical practice. An evaluation of the TY is important to establish if it is functioning optimally. Evaluation involves not only describing a program's performance, but making a judgement on how 'good' it is, achieved by applying criteria and standards to evidence. This study aimed to develop an evaluation framework, incorporating criteria and standards, collaboratively with stakeholders to guide the TY evaluation.

#### **Methods**

A literature review revealed no published evaluations in medical education which explicitly use criteria and standards to judge program performance. In this qualitative study, a series of eight online workshops with thirteen CICM stakeholders were conducted. Participants included TY trainees, new intensive care medicine specialists, intensive care unit directors, TY supervisors and CICM staff. Workshops utilised presentations, discussion, and activities on an interactive online whiteboard to support participants' understanding of evaluation and generate data to inform the development of the evaluation framework. Content analysis was used to analyse data. Ethical approval for this study was granted by the University of Melbourne Human Research Ethics Committee.

#### **Results**

Six evaluation criteria were established as part of the framework: equity of access, quality and value of experience, effectiveness, impact on intensive care units, support for trainees and support for intensive care units. For each criteria, descriptors of good, adequate, and poor program performance were developed.

#### **Discussion**

The collaborative approach to evaluation framework development will aid the conduct of a robust, relevant, and useful evaluation of the TY. Sharing the framework and the development process with the health professional education community will support others to conduct their own program evaluations.

## Place-based learning and the development of clinical reasoning in context

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### Introduction:

To address perceptions of limited learning in medically underserved locations, researchers often conclude that rural place-based medical training is as good as their metropolitan counterparts<sup>1</sup>. In seeking equivalence, such research rarely examines the contextualised nature of competencies that develop from training in unique contexts. Clinical reasoning is an essential health professional competency where context may influence its development<sup>2</sup>. To date, place-based medical education research has not focused on the development of clinical reasoning. This research study investigated the question 'how does place impact on the development of clinical reasoning expertise in medical students?'

### Methods:

This focused ethnographic study was conducted during the final year General Practice (GP) placement of the Doctor of Medicine program at Western Sydney University, Australia. We employed a multiple case study approach, conducting in-situ interviews with students and staff, direct observations, and document analysis between June and November 2023 in four GP rural and urban placement environments. Four corresponding data sets with transcribed audio records, field notes, memos and learning artefacts were thematically analysed.

### Results:

We report on observations of 267 supervisor-student-patient encounters and 46 interviews with students, GP supervisors, practice staff, allied health practitioners and educators. Our preliminary analysis identified a range of place-based phenomena which impact on clinical reasoning development, including remoteness of place, temporal dimensions of place, and role modelling. Remoteness of location and time-based aspects such as the time of day can promote transformative learning experiences which are rarely provided in other contexts. Place also influenced learning through unique patient-GP supervisor-student interactions that support role modelling.

### Discussion:

Elements of place-based medical education positively and directly impact the development of clinical reasoning. Further exploring the mechanisms of such impacts and their transferability to contexts where medical graduates are needed could inform place-based learning designs aimed at empowering future doctors to become contextually competent clinical decision makers.

### References:

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## Utilising video-based orientations improves consistency and standardisation of content for intern rotations

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### **Introduction:**

Orientation to clinical placements or rotations are an essential element to giving students and trainees the best start in a new environment, role and team. The consistency and quality of orientation is measured both by accreditation bodies and by the national medical training survey. National survey data from 2023 indicate that only 66% of interns received formal orientation, 28% informal orientation and 6% no orientation. 75% of interns reported the quality was good or excellent.

### **Methods:**

Our hospital network sought to address the consistency and quality of intern rotation orientation by creating individual orientation videos for all 32 rotations on offer in 2024. Content was standardised to ensure consistency and information gathered from all clinical rotations. A welcome from the relevant divisional director and video walk-throughs for key areas were also included. Clinical units were still encouraged to continue offering face-to-face local orientation, as previously.

### **Evaluation:**

Interns from 2023 and 2024 were surveyed to gain their perspectives on the consistency and quality of orientation before the videos were made available (2023 cohort) and after (2024 cohort). We will present these findings in the session.

### **Discussion:**

Utilising video-based orientation allows consistent availability of good quality orientation to each clinical rotation. Interns appreciated the universal availability of these resources, the higher engagement that video offered over text and the welcome messages from divisional directors. An unexpected benefit from the process was standardising messaging and procedure around important issues such as communicating sick leave, structure of discharge summaries and policies for claiming overtime. The cost of time/resources in collecting contemporary information, videoing content and editing is not insignificant and ensuring the available resources are always current requires ongoing attention.

## Quality learning and teaching: designing a mental health education enhancement hub

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### **Introduction/Background**

There is a significant theory to practice gap that exists in mental health work-integrated learning experiences of undergraduate health students. In response to this, Three Rivers DRH is in the process of designing and developing a Mental Health Education Enhancement Hub, which will aim to bridge the gap between education, community, and workforce, informed by subject matter experts, local consumers, academics, and industry partners. Currently, Three Rivers DRH is consulting with various subject matter experts to determine the appropriate learning resources to include in the 'Mental Health Education Hub'.

### **Methods**

The aim of this PeArL session is to seek the views of academic leaders in the mental health education field to determine what they believe quality learning and teaching in the rural mental health space looks like. This PeArL session will facilitate a discussion with participants on the overall mental health education needs of students from various health disciplines.

### **Results/Evaluation**

Overall, we hope to give participants the opportunity to share their knowledge of innovative approaches to rural mental health education, and to learn from their colleagues. Through sharing amongst colleagues, we hope to emphasise the impact of inter-professional learning and collaboration to achieve universal goals in the rural mental health education space, as well as inspiring participants to push the boundaries of what quality mental learning and teaching looks like to them. Get creative and put yourself in the driver's seat of what the future could look like and share ideas in a safe, collegial space, whilst making great connections in the process.

### **Discussion**

The first half of the session will be led by the questions for exploration that are provided under the heading below. The second half of the PeArL session will be an interactive workshop, where participants will be given a hypothetical scenario in which they are tasked with designing their own 'Mental Health Education Hub'. The groups will then present their project proposal to the other participants for discussion and evaluation. At the end of the session, the authors will present their own Mental Health Education Hub model to the group for feedback and evaluation.

## How student placements can positively contribute to workforce development

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<sup>1</sup>Monash University, <sup>2</sup>RCSI University of Medicine and Health Sciences

### Introduction/Background

Despite rapid growth in registered allied health professions over the last 10 years there remains a national shortage of some allied health professions in Australia. This shortage of available professionals contributes to the shortage of clinical placements due to the disproportional growth in allied health student numbers. Studies have explored ways to address placement shortages, often focusing on the ratio of students to educator with inconclusive evidence in favour of any one ratio model (Beveridge & Pentland, 2020). The aim of this research is to investigate the contextual factors which may influence the capacity of an organisation to take students.

### Methods

Appreciative Inquiry aims to discover 'the best of what is', what energises people and what they most care about, to produce shared knowledge and motivation for action. It follows a 4-step process of Discover, Dream, Design and Destiny. Multiple stakeholders are included to allow the generation of knowledge and action to be less skewed to the most powerful. A 1:1 interview enables each participant to have a voice. Participants then attend a positive change consortium where they collectively review themes from the interviews and agree on actions for change.

### Results/Evaluation

Interviews with participants from across Australia have identified the positive organisational and state/territory frameworks and processes that support OT placements and workforce development. Examples are: the presence of a dedicated clinical educator role, strategic education plan and managerial support. These are most effective when present at both organisational and state level. An aspirational framework and areas for action have also been identified.

### Discussion

This research identifies what is currently working well to create OT student placements and how student education can positively contribute to workforce development. It also highlights an aspiration for a national framework. How this aspiration can be met needs to be explored in further research.

### References

Beveridge, J., & Pentland, D. (2020). A mapping review of models of practice education in allied health and social care professions. *British Journal of Occupational Therapy*, 83(8), 488-513. <https://doi.org/10.1177/0308022620904325>

## Doctors helping pharmacists help doctors: A pilot programme for interprofessional practice

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### Introduction

As we emerge from COVID-affected years, inter-professional communication between doctors and pharmacists has been adversely impacted by restrictions on ward-based work. Many pharmacists have lost confidence communicating with medical colleagues and understanding the clinical context when giving prescribing advice.

Waitematā's medical education programme focuses on developing pharmacist coaches to accelerate junior doctors' safe prescribing skills. It was therefore felt timely for doctors to help pharmacists. We have co-designed a pilot 10-week work-based programme to improve confidence and competence for early-career pharmacists. Our aim is to improve clinical communication with junior doctors, while fostering a positive, safe learning environment, and role-modelling inter-professional collaboration.

### Method

Six volunteer pharmacists attended the workshops (including 10 classroom hours and 20 hours assigned reading/tasks).

The programme utilises a flipped classroom alongside experiential learning with specific objectives.

Retrospective analysis was undertaken to evaluate its impact on readiness for ward practice, confidence, and perception of junior doctors' learning environment and opportunities.

Data collection was through:

1. Pre- and post-workshop surveys: voluntary, anonymised and electronic
2. Self-reflective focus group interviews with participants

### Results

Quantitative results indicate a shift in perspective from pharmacists being knowledge repositories, to being providers of guidance and education to junior doctors. In pre-workshop surveys, only 16% of candidates felt confident talking to junior doctors about prescribing, with the remainder having 'little' to 'some' confidence. Post-workshop, 100% of participants felt 'Confidence' or 'High confidence' in this area.

Qualitative results indicate participants learned the importance of providing context and explanations to prescribers and their challenging learning environment.

### Discussion

The workshops facilitate pharmacists' understanding of doctors' work-based and learning environments, build confidence, and ease the challenging transition from pharmacy to ward. Near-peer teaching, role-modelling collaborative practice, and understanding challenges faced by junior doctors contribute to optimisation of learning and feedback opportunities, ultimately improving clinical practice.

### Virtual Reality (VR) as a teaching and learning tool in undergraduate healthcare education

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#### **Introduction/Background**

Simulation is an integral component of practice-based education and is used to enhance students learning, experiences, and skill development which are then synthesised during clinical placements. Virtual reality is an innovative technology that is increasingly being used in healthcare education, however, there is a paucity of literature on the experiences of students and educators who implement and use VR technology in undergraduate healthcare education. Findings from a recent systematic review and data exploring the student perspective will be presented.

#### **Methods**

An interpretive hermeneutic phenomenological approach was adopted to guide the research design, methods, and analysis which explored the research questions 'what are the lived experiences of VR as a teaching and learning tool for midwifery educators and students?' and 'what is the emerging pedagogy in VR midwifery education?' The strength of this approach is the capacity to explore the experiences of the participants in depth. Ricoeur's conceptual framework of prefiguration, configuration and refiguration has been used to analyse this research.

#### **Results/Evaluation**

Several themes emerged during the SR these were learning safely, the learning experience, learning efficacy, and learning meaningfully. These themes were further corroborated by data collected during face-to-face interviews with undergraduate midwifery students from Ara Institute of Canterbury, New Zealand.

#### **Discussion**

VR technology is a safe and effective tool in healthcare education. When implementing this tool, the experiences of learners must be considered to ensure that learning is pedagogically sound, applicable to clinical practice, and valuable to learners transitioning into the workforce.

## Touring clinical sites before placements using virtual reality (VR) 3D imagery

**Vu H<sup>1</sup>, Arruzza E<sup>1</sup>**

<sup>1</sup>*University Of South Australia*

### **Introduction/Background**

Effective teaching in higher education requires the adoption of innovative technologies to enhance the learning experience. Among these innovations, Virtual Reality (VR) is redefining traditional pedagogical approaches. This technology bridges the gap created by limited placement opportunities in healthcare facilities and mitigates the challenges of traditional learning experiences<sup>1</sup>. The aim of this project is to develop a VR 3D imagery web-based virtual tour to enhance students' familiarity with clinical sites and equipment before and during placements, providing them with an interactive learning experience and the information required to perform safely in their clinical placements.

### **Methods**

This project has been provided ethics approval by the UniSA Human Ethics Committee (Study No. 206011) and is supported a UniSA Teaching & Learning Grant. The project will involve first and second-year Medical Radiation Science (Medical Imaging) students who have not previously engaged with the radiology clinical environment. A 3D tour of a radiology clinic, created in collaboration with industry leaders, will be made available to students during the first semester of 2024.

### **Results/Evaluation**

Pre-tour and post-tour questionnaires will aid in determining how well participants have become familiar with the clinical environment. Questionnaires will include both five-point Likert-scale and open-text questions. Quantitative data will be analysed using relevant statistical tests to determine the significance of results from matched questionnaire statements. Qualitative information participants will undergo thematic analysis.

### **Discussion**

This project will be pivotal in gaining the learning insights of medical radiation students and assist with their transition into clinical practice. It is envisioned these findings will be generalisable to education in other healthcare disciplines.

### **References**

<sup>1</sup> Rowe, D., Garcia, A., & Rossi, B. (2023). Comparison of virtual reality and physical simulation training in first-year radiography students in South America. *Journal of medical radiation sciences*, 70(2), 120–126. <https://doi.org/10.1002/jmrs.639>

## Leveraging technology to enhance collaboration in team-based learning

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### Background

The University of Queensland (UQ) commenced a new Doctor of Medicine (MD) program in 2023, incorporating team-based learning (TBL) into the curriculum for the first time. As a new pedagogy, implementation of TBL required the creation of new resources and a different approach to the delivery of educational content. The use of collaborative tools was explored to optimise the delivery of content in an equitable and engaging way for students and to support the core TBL facilitator in managing the learning experience for a large group.

### Methods

Over the course of 2023, 56 unique TBL sessions were completed in the UQ Year 1 MD program. The collaborative tools used during TBL included Padlet™, H5P™ content (The Chase, Word Cloud, Multipoll, Emoji Cloud, Drag and Drop), Blackboard™, PowerPoint™, and OneNote™. Throughout each TBL session, students were required to frequently engage with these online tools, including posting responses on Padlet™, taking notes within OneNote™, and completing The Chase (a game interface), as a minimum. TBL facilitators were required to manage and troubleshoot all collaborative tools.

### Evaluation

Formal and informal feedback was provided by the TBL facilitators across the year regarding the implementation of TBL. Additionally, a formal review of TBL cases was undertaken and processes streamlined for 2024. Collaborative tools that were deemed to be cumbersome or redundant by the TBL facilitators were removed.

### Discussion

The experience of TBL facilitators utilising multiple collaborative tools to implement the new TBL program will be discussed. Considered use of collaborative tools enhanced the delivery of large group teaching in TBL, however overreliance on technological platforms, particularly for the sake of "being innovative" was felt to negatively impact face-to-face facilitation. Faculty development to upskill TBL facilitators is essential to successful deployment of collaborative tools. Future research will seek to explore the student perspective.

## Mixed-reality triage training for mass casualty incidents: Feature priorities and changes over time

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### Introduction/Background

Mixed-reality offers an innovative and immersive approach to training complex medical skills in high-stress situations, such as mass casualty incidents. Deciding which features to include and how to prioritise them in the blended virtual/physical environment is an important part of the complex design process for mixed-reality training. This study aimed to describe mixed-reality training feature priorities for mass casualty incidents, and explore the extent to which the priorities changed following the training implementation.

### Methods

A mixed-reality training program was developed by MED1stMR (EU Horizon, 2021) to develop medical first responders' triage skills in mass casualty incidents. Participants were recruited from five European emergency medical service organisations within the MED1stMR project. Participants rated training features across five content areas: the mannikin, live training system, equipment, debriefing dashboard, and analytics and statistics. The features were rated using the MoSCoW scale (i.e., must have, should have, could have, won't have). The baseline survey was completed in late-2022. Field trials for the mixed-reality training were carried out by the five emergency medical service organisations between June 2023 and January 2024. The follow-up survey was completed in early-2024.

### Results

Descriptive statistical analysis will be used to explore how the mixed-reality training features were rated and prioritised. The baseline and follow-up responses will be compared to determine the extent to which the priorities changed over time. Free-text comments will be analysed descriptively to give context to the results.

### Discussion

To develop mixed-reality mass casualty incident training that is technologically sound and aligns with the intended learning goals it is necessary to understand how features in the virtual/physical environment are prioritised. To enhance the efficiency and feasibility of mixed-reality medical skills training it is crucial to examine shifts in feature priorities over time and identify possible reasons for these changes.

### References

EU Horizon 2020. (2021). MED1stMR: Medical first responder training using a mixed reality approach featuring haptic feedback for enhanced realism. <https://cordis.europa.eu/project/id/101021775>

## Overcoming isolation: building a global community of practice through SCENARIO Ed

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<sup>3</sup>University of Melbourne, <sup>4</sup>Monash University

### Introduction/Background

General practice is recognised widely as an isolating medical specialty. Coupled with physical isolation, GPs are increasingly vulnerable to professional isolation due to limited opportunity for interaction and collaboration both within the community practice and between the community and acute settings. For students and doctors in training, isolation may become a defining feature of general practice which negatively impacts career intent. This paper reports on the development of SCENARIO Ed, a tool that leverages advances in technology to promote learning and reduce isolation via the establishment of a worldwide virtual community of practice for students, trainees, supervisors, and educators.

### Methods

*If you are reporting on a completed research or evaluation project then please describe the methods used. If you are reporting on an in-progress project, an innovation, or educational challenge then please describe you will conduct the study, implement the initiative, or examine the idea.*

In 2023, GPSA launched SCENARIO as an online application designed for clinical supervisors and educators to access randomly selected “scenarios” commonly encountered in community practice (e.g. tricky consultations). These case studies or scenarios can be used by educators across the world to boost exposure to community practice and facilitate problem-based discussions with students/trainees during teaching sessions.

SCENARIO Ed is a companion application that builds on teaching sessions through a global, online forum that enables students and trainees to discuss scenarios with other learners at different educational levels and in a variety of international jurisdictions.

## Near-Peer Learning: The First Principles of Medicine Educational podcast

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<sup>1</sup>*University Of Western Australia*

### **Introduction/Background**

Medical education is anchored by the foundational necessity of imparting evidence-based and clinically sound knowledge to students. Podcasts represent an ideal medium to complement the traditional education paradigm, thanks to convenience and familiarity. In a field of study where medical students are flooded with an overabundance of information, our podcast, First Principles of Medicine (1PM), is built upon the premise of using near-peer teaching to simplify complex medical topics into their first principles – maximising understanding by minimising the noise.

### **Methods**

Starting in 2022, a team of three medical students produced 42 podcast episodes via major audio streaming platforms (such as Spotify, Apple podcasts, Google podcasts) across a range of topics, in collaboration with senior clinicians from the UWA Medical School. Metrics were obtained from each platform on the number of total plays, subscribers, and demographics of subscribers. Qualitative feedback was obtained through podcast platform comments.

### **Results/Evaluation**

Over 2022 and 2023, the 1PM podcast had more than 11,000 total plays and more than 650 subscribers, across 80 countries worldwide. The 1PM Instagram page had over 47,000 views, with 1,880 followers. Accompanying video podcasts and study notes were also provided, with 1,461 website views. The most frequently accessed episodes were Stroke, Chronic Kidney Disease, Heart Failure, Atrial Fibrillation, and Sepsis. The greatest number of positive comments related to provision of both a short five-minute summary and a longer more conversational format on the same topic.

### **Discussion**

Keys to success were the ability to maintain momentum and production by having a broad, engaged team of student content developers, medical school academic support, and succession planning. Academic staff valued identification of popular topics, and these will be used to guide future curriculum content. Champions have been identified in subsequent years of medical school to generate further episodes and continue the podcast's success.

### **References**

No references

### A realist review of widening access selection pathways into medical school

**Bartle E**<sup>1</sup>, Carr S<sup>1</sup>, Mogensen L<sup>2</sup>, Olson R<sup>3</sup>, Hyde S<sup>1</sup>, Roberts P<sup>4</sup>, Downes N<sup>4</sup>, Pena A<sup>5</sup>, Shepherd N<sup>3</sup>, Cleland J<sup>6</sup>, Hu W<sup>2</sup>, McCoombe S<sup>1</sup>, Dashwood R<sup>2</sup>

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#### Introduction

The under-participation of students from disadvantaged population groups in medical education reflects broader complex structural and societal issues, highlighting that widening access (WA) selection pathways into medicine are highly context-dependent. While much literature on WA pathways exists, to date this is limited to small, mostly descriptive, single-site studies; hence there is a need for more robust and theory-driven approaches to yield transferable findings. This realist review sought to develop explanatory theory on designing and implementing selection pathways that successfully widen access to medicine and increase cohort diversity.

#### Methods

A realist approach to evidence synthesis identified the mechanisms (M) of action underpinning WA interventions for selection into medical school. We examined how these mechanisms triggered outcomes (O) related to increasing cohort diversity within different contexts (C). Our research design was informed by Pawson's<sup>1</sup> five iterative strategies for realist review: (1) locate existing theories, (2) search for evidence, (3) select articles, (4) extract and organise data and (5) synthesise the evidence and draw conclusions.

#### Results

Of the 6300 studies identified and screened in the main search, 32 met the inclusion criteria. Five types of WA interventions were reported across the 32 papers. Our realist analysis developed and refined 19 context-intervention-mechanism-outcome (CIMO) configurations. Mechanisms were categorised as addressing institutional, situational, or dispositional barriers to selection into medicine. While situational factors were often the impetus for implementing a WA intervention, the interventions themselves were developed with either an institutional or dispositional focus.

#### Discussion

The developed program theory will be presented along with discussion on example CIMOs which impacted on cohort diversity. Interestingly, while all studies reported either an increase in applicants to WA pathways and/or increase in offers, this didn't always translate into increased offer acceptances, reinforcing the significance of considering context when designing and implementing WA initiatives.

#### References

1. Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review – a new method of systematic review designed for complex policy interventions. *Journal of health services research & policy*. 2005;10(1\_suppl):21-34.

## Virtual success: Navigating the future with the implementation of virtual multiple mini interviews for admission into undergraduate medical, dental, and oral health degrees

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### Introduction

The adoption of Multiple Mini Interviews (MMIs) has become widespread for evaluating non-cognitive qualities in applicants to health professional programs. The COVID-19 pandemic prompted a swift transition from in-person to virtual MMIs (vMMIs), with initial findings supporting both the feasibility and acceptability of the virtual format. While encouraging, many of these findings were based on virtual interview processes that were rapidly implemented in response to the pandemic. In contrast, this presentation will describe the successful implementation and evaluation of a carefully designed large-scale, sustainable vMMI process for the selection of applicants into undergraduate medical, dental, and oral health programs at the University of Adelaide.

### Methods

A vMMI process was implemented in November 2022. Applicants ( $n=1001$ ) rotated through an online series of interview stations using Zoom, while interviewers ( $n=450$ ) were physically co-located at the University of Adelaide. Using online surveys, the vMMI process was evaluated by both applicants ( $n=255$ ) and interviewers ( $n=396$ ).

### Results

Overall, the vMMI was largely reported to be a positive experience by both applicants (96%) and interviewers (98%). There was no difference in the satisfaction with the vMMI process for applicants based on their gender, language spoken at home, or rural status. The majority of interviewers (99%) and applicants (94%) reported feeling comfortable and competent using Zoom during the interview process. The process was reported to be fair and equitable, and free of gender and cultural bias by applicants (97%) and interviewers (99%). A minority of participants reported challenges with the virtual process including a reduced capacity in rapport building and background noise disturbances.

### Discussion

A large-scale vMMI process for three health professions programs was successfully implemented and positively evaluated by both applicants and interviewers. This innovative format can provide guidance for other institutions planning on implementing a similar style of interview format in the future.

## “I hadn't ever really thought it was something that I could do”: Rural background medical graduates' pathways to medicine.

**BEATTIE J**<sup>1</sup>, Binder M<sup>2</sup>, Beks H<sup>2</sup>, Fuller L<sup>1</sup>

<sup>1</sup>Deakin University: Rural Community Clinical School, <sup>2</sup>Deakin University: University Department of Rural Health

### Introduction/Background

To ameliorate the rural medical workforce crisis a key strategy is to provide equity for rural background students to enter medical degrees, as this group is more likely to work rurally once graduated<sup>1</sup>.

Currently 25%<sup>2</sup> of all Commonwealth Support Medical places must be reserved for rural background graduates. Despite this, rural background students still experience admission challenges. Absent from the literature has been the rural background graduates' voice, detailing their lived pathway to medicine experience.

### Methods

This study is a subset of a larger qualitative study with medical graduates from a rural Longitudinal Integrated Clerkship program. As part of this study rural background participants (n=17) described their journey to medicine. Interviews were audio recorded, transcribed verbatim and thematically analysed to elicit themes aligned with the barriers and facilitators to admission to medicine.

### Results/Evaluation

Participants highlighted both barriers and facilitators towards successfully gaining entry to medicine. Barriers included aptitude tests, lack of visibility of medicine as a career in their rural communities, and financial issues. Facilitators included equity admission policies, perseverance, and life experience.

### Discussion

Understanding the experiences of rural background doctors who gained admission to medicine provides learnings to help reduce barriers for prospective rural applicants. While participants were cognizant that equity bonuses helped them gain entry to medicine, they felt there were still significant barriers, particularly a lack of visibility of medicine as a career for rural residents.

It is necessary to challenge the status quo and question if current selection tools employed within medical admission processes are adequately redressing rural inequities. Grappling with this question has led Deakin University to develop a comprehensive rural training stream (RTS) with key design elements increasing the visibility of medicine as an achievable career within our training footprint and removal of selection and training barriers.

### References

1. Beattie J, Binder M, Fuller L. Rural longitudinal integrated clerkships and medical workforce outcomes: A scoping review. *Med Teach*. 2023 Sep 28:1-11. doi: 10.1080/0142159X.2023.2260082. Epub ahead of print. PMID: 37769044
2. Commonwealth of Australia Department of Health and Aged Care. Rural Health Multidisciplinary Training (RHMT) Program Framework (2019-20). 2021. [Rural Health Multidisciplinary Training \(RHMT\) program framework 2019–2020 | Australian Government Department of Health and Aged Care](#)

## Cultural Bias in Medical School Selection Interviews – A Scoping Review

**Wong J**<sup>1</sup>, King S

<sup>1</sup>*Flinders University*

In Australia, our communities are inherently diverse and, thus, it is important to ensure that healthcare delivery meets these diverse needs, improving health care outcomes. One way to facilitate culturally appropriate care is to ensure that medical schools reflect cultural diversity. From a medical admissions perspective, this involves ensuring that successful applicants represent the cultural diversity inherent in our society. Achieving this requires that admissions processes select for diversity.

This study explored the existing literature to understand the influence of cultural bias on medical school selection interviews. The research question which this study sought to address is: *How is cultural bias in high stakes interviews identified, managed, and researched in the medical selections' literature?*

The review was conducted in line with Arksey and O'Malley's five-step scoping review framework. The key terms identified were cultural bias, interviews, and medical admissions, which formed the basis of the search across four main databases (MEDLINE, Scopus, PsycINFO, and ProQuest [including ERIC]).

28 papers were included, majority being research papers, originating from USA, UK, Canada, Australia, and Belgium. The key overarching themes were based around cultural diversity amongst applicants and interviewers, cultural awareness of applicants and interviewers and processes to mitigate in interviewers' bias towards applicants.

Despite increased initiatives to increase diversity, acceptance of underrepresented minorities still remains low. From how the interview structure is formed, to the interviewers' process of assessment, there are many factors in the interview process that require further investigation and are sources for cultural bias. Key initiatives which should be implemented include cultural sensitivity training of the interviewers, standardisation of the MMI interview format and creating culturally appropriate assessment tools which do not discriminate against individuals.

### Development and implementation of an innovative, multi-disciplinary and multicultural learning experience using collaborative online international learning (COIL) pedagogy

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#### **Introduction/Background**

Health professionals are expected to provide quality health care to increasingly diverse social and cultural groups. It is now understood that a multidisciplinary and collaborative approach to patient care improves health outcomes and enhances patient satisfaction. To achieve this, health professionals' training must incorporate global citizenship attributes such as cultural responsiveness, effective teamwork and collaborative approach.

In 2023, education researchers from Monash University Australia and Malaysia and the University of Padua, Italy piloted a joint education and research initiative, bringing together interdisciplinary health professions - Public Health, Psychology and Nursing students to equip them with the necessary skills required to enhance the understanding of cultural responsiveness, and effective shared care, through global learning.

#### **Methods**

We co-designed and co-delivered an innovative, multidisciplinary and multicultural learning experience for students from three different disciplines and three different countries. The designed content was embedded within two undergraduate and one postgraduate units. The learnings included appreciating cultural diversity in healthcare service delivery, enhancing cultural responsiveness and practising collaborative healthcare for improved patient outcomes, all through global learning. A specialised COIL Moodle site was created to support students' learning.

#### **Results/Evaluation**

The program was delivered online comprising four two-hour weekly joint Monash-Padua sessions, in October 2023, attended by 65 students and 11 educators from three institutions. At the end of the program, students completed an evaluation survey [N = 36, 55%], about 88% of whom were either 'satisfied' or 'very satisfied' with the program. One student commented, *"I enjoyed participating in this program as I had the opportunity to get to know different healthcare professionals but more importantly, I deepened my cultural knowledge"*.

#### **Discussion**

COIL is an innovative and effective learning pedagogy aimed at providing a rich international experience to students. This collaborative, innovative, and multicultural learning experience has the opportunity to enhance health professions students' perspectives on cultural responsiveness and collaborative care.

## Assessing novice learners with case based discussions in general practice

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<sup>1</sup>*University Of Adelaide*

### **Introduction/ Background**

A case-based discussion (CbD) is a form of workplace based assessment between a supervisor and learner. The learner presents a clinical case that they were involved in, and the supervisor guides a discussion to identify the learner's needs. In its diverse adaptations by medical colleges, its utility has been evaluated in postgraduate learners, who are at the competent to proficient learning stage. Early medical students are novice learners with limited knowledge and ineffective perceptual discrimination.

The aim of the research is to evaluate the utility of CbD in novice learners undertaking general practice (GP) placements.

### **Methods**

The University of Adelaide Medical School's BMD degree is prioritising early significant medical student exposure to GP. The third year of the BMD will include longitudinal one-day-per-week placement in a GP clinic. Paired students will begin by observing GP consults, before progressing to a parallel consulting style of learning. Their primary focus will be on developing competence in history-taking and physical examination skills.

A mixed-methods study design using surveys, interviews, and focus groups of both students and GP supervisors will be used.

### **Results/Evaluation**

It is proposed that novice learners on entry to clinical GP placements will be assessed with a variety of methods, and that an innovative CbD will be part of the assessment programme.

The view is to ensure design and delivery of a meaningful assessment for both novice learners and GP supervisors.

### **Discussion**

There are few studies that evaluate the assessment of novice learners on entry to a GP setting. This study will evaluate the utility of CbD. Factors including educational value, feasibility, and acceptance will be assessed. The results of the study will be relevant for other clinical teaching contexts, including universities selecting programs of assessments for courses featuring early GP exposure.

## Teaching rural health to city-based medical students- can it be done?

**Morgan K**<sup>1</sup>, Herde B<sup>1</sup>, Walters L<sup>1</sup>

<sup>1</sup>Adelaide Rural Clinical School

### Introduction/Background

Over the last two decades the Rural Health Multidisciplinary Training program has funded rural health experiences for a range of health professional students. One of those models is longitudinal placements and there is extensive literature exploring the impact of these, particularly on medical students and medical workforce. There has, however, been little consideration of how urban based students are taught about rural health.

The Adelaide Rural Clinical School (ARCS) delivers the Year 5 curriculum rurally to at least 30% of the Commonwealth supported (CSP) medical students each year. A current curriculum review provides the opportunity to consider how a rural health perspective may be taught to the 70% of students who do not experience a year long rural placement in Year 5.

### Methods

ARCS is considering strategies to expose metropolitan based medical students to the issues in rural health. Proposed curriculum development includes online learning modules, opportunities for rural clinicians to teach into the metropolitan program and case discussions about rural origin patients receiving care in metropolitan tertiary hospitals.

### Results/Evaluation

Obtaining learner and teacher feedback on any new curriculum development is critical. ARCS needs to work closely with the Adelaide Medical School to ensure that a comprehensive evaluation process is in place, engaging all stakeholders.

### Discussion

The literature focuses on rural curriculum delivered in rural areas to promote the development of rural workforce. The purpose of this discussion is to address the gap in the literature by exploring how health professional education programs are integrating the rural health agenda into their courses for all students. Participants will have an opportunity to share their experiences and ideas on this area of curriculum development.

### References

- Department of Health and Aged Care. (n.d). Rural health multidisciplinary training (RHMT) program. <https://www.health.gov.au/our-work/rhmt>
- Oandasan, I., Martin, L., McGuire, M. & Zorzi, R. (2020). Twelve tips for improvement-oriented evaluation of competency-based medical education, *Medical Teacher*, 42(3) 272–277. <https://doi.org/10.1080/0142159X.2018.1552783>

## The other AI: Maintaining academic integrity of written exams

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### **Introduction/Background**

Innovations in assessment are often associated with risks as well as benefits. One such example is Bring Your Own Device (BYOD) exams. BYOD exam delivery is associated with advantages over paper exams such as secure and efficient data collection. BYOD exam delivery also has advantages such as student device familiarity and removing the need for universities to provide computer labs which otherwise sit redundant. A significant risk of BYOD is the potential for breaches of academic integrity which threaten the underlying validity of the assessment.

### **Methods**

We will explore risks to AI in BYOD in-person exams from the perspective of unintentional and intentional breaches. Unintentional breaches are those where students did not set out to gain advantage in the assessment, but, through ignorance or lack of understanding, have put the integrity of the assessment at risk. Intentional breaches are those where students have deliberately set out to subvert the system or to gain an unfair advantage.

### **Results/Evaluation**

We will explore drivers for breaches - students may view the assessment as unfair, inappropriate or irrelevant, or perceive that everyone is breaching integrity. Alternatively, they may perceive the assessment stakes as higher, either academically or due to external pressures such as finance, or expectations of others.

### **Discussion**

Through exploration of breaches, and drivers for breachers, we'll consider strategies to empower students to engage with BYOD advances with academic integrity, and institutional and logistic supports to decrease the influence of drivers for breaches of academic integrity.

### **References**

N/A

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### When is entrustment achieved in a pre-registrant pharmacist training program?

Protuder N<sup>1</sup>, Walker S, Chung S, **Emery B**, Crockett J, Cawcutt N

<sup>1</sup>National Alliance for Pharmacy Education (NAPE)

#### **Background AND Statement of aim(s):**

Australian pre-registrant pharmacists (interns) are required to complete a year-long practice period directly supervised by a registered pharmacist (preceptor) in either a hospital or community setting alongside an Intern Training Program (ITP). In 2023, Entrustable Professional Activities (EPAs) for dispensing, compounding and counselling were integrated into the ITP.

The aim was to compare the proportion of community and hospital interns entrusted to perform each EPA independently (Level 4) at periodic time points (13-weeks, 26-weeks and conclusion) during their pre-registration year.

#### **Methods:**

In 2023, 251 interns (community n=133; hospital n=118) were enrolled in the ITP. At 13-weeks, 26-weeks and conclusion of the ITP, preceptors reported the entrustment level for each EPA. This data for each time point were analysed to determine the proportion of interns entrusted at Level 4 for each EPA. A Chi-square statistical test was performed to compare proportions between community and hospital interns ( $p < 0.05$ ).

#### **Results:**

Statistically significant differences in the proportion of community and hospital interns entrusted at level 4 for dispensing was noted at 13-weeks (49% community; 34% hospital,  $p = 0.029$ ), 26-weeks (73% community; 53% hospital,  $p = 0.002$ ) and final assessment (95% community; 86% hospital,  $p = 0.046$ ). Similar statistically significant differences were observed for compounding at 13-weeks (35% community; 20% hospital,  $p < 0.001$ ), 26-weeks (62% community; 34% hospital,  $p < 0.001$ ) and final assessment (93% community; 80% hospital,  $p = 0.011$ ). For counselling, the results were comparable at 13-weeks (41% community; 30% hospital,  $p = 0.306$ ), 26-weeks (65% community; 52% hospital,  $p = 0.098$ ), and final assessment (95% community; 88% hospital,  $p = 0.141$ ).

#### **Discussion and/or Conclusion:**

A significantly higher proportion of community interns were entrusted to dispense and compound independently earlier than hospital interns, but no such difference was observed for counselling. This may in part be explained by differences in hospital and community pharmacy roles and therefore workplace exposures to dispensing and compounding tasks.

## Digitalization and Workplace-based Assessment in Health Professions Education

**McNally C**<sup>1</sup>, McCarthy A<sup>1</sup>, Mustchin C<sup>1</sup>, Byrne S<sup>1</sup>, Robertson P<sup>1</sup>

<sup>1</sup>The University Of Melbourne

### Introduction/Background

Workplace-based assessment (WBA) is a pivotal element in health professions education. It is instrumental in cultivating clinical reasoning, interpersonal skills, and the ability to navigate the ethical complexities inherent in healthcare practice. At the core of the WBA, is assessing learners' current capabilities as a reliable predictor of their future performance in professional practice. As an integral component of a comprehensive assessment program, the effective implementation of WBA demands regularity and purpose. This entails the utilization of appropriate assessment tools, engagement of qualified raters, cultivation of a receptive learning environment, and the commitment to ongoing improvement (McBride et al. 2020). The purpose of this PeArLS is to discuss how different disciplines in health professions education have solved challenges in designing reliable and valid WBA in the era of digitalisation. Exploring this topic will form part of the Melbourne Dental School assessment teams' body of research and publication plan.

### Methods

We will explore how to improve workplace-based assessment in health professions, specifically in dentistry, education via a systematic review.

### Results/Evaluation

In the semi-structured interviews conducted with 12 Clinical Supervisors (CS) in dental clinics across Victoria we have found that CSs differ in what they deem to be competent. The differences in supervisor opinions and understanding about what is considered competent can be challenging for them and, ultimately, students. Our literature review shows that, from a measurement perspective, variability among assessors when assessing students may be viewed as a concern as it negatively impacts score reliability and validity (Roberts et al. 2020). Feedback and the learner and supervisor interaction is a primary driver of learning. On the other hand, time is the most common barrier to effective interaction during WBA. Patient, assessor, and learner availabilities often do not align. The time constraints also affect the quality of feedback. One of the themes we concluded after the analysis of 7 semi-structured interviews with the recent graduates of Melbourne Dental School programs is insufficient personalized feedback from the CSs.

### Discussion

There is a gap in the literature regarding the utilization of effective WBA tools in an era of digitalization and cultivation of learner-supervisor interaction in fast-paced clinics.

### Issues/questions for discussion:

What are the main causes of variability in a performance assessment of practice-based competencies in different disciplines? What are the determinants of assessor behavior in different clinical environments? How can the student-clinical supervisor interaction be improved?

### References

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# Self-Assessment of Ophthalmology Competency among Thai Medical Interns

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<sup>1</sup>Faculty of Medicine, Thammasat University, <sup>2</sup>Thammasat University Hospital, <sup>3</sup>Thammasat Eye Center

## Introduction

Ocular issues encountered in general practice significantly impact patients' health and quality of life. However, Thai medical undergraduate programs dedicate only 1-2 weeks to ophthalmology rotation, potentially impacting students' knowledge, skills, and confidence in managing eye patients. Despite this potential concern, limited empirical evidence on students' competency exists. This study investigates the knowledge, skills, and confidence of medical interns in ophthalmology to inform curriculum development within Thailand's medical schools.

## Methods

A cross-sectional descriptive design was used to survey 160 medical interns who graduated from Thai medical schools nationwide. A self-assessment questionnaire assessed their knowledge and confidence in ophthalmic diseases and procedures. The questionnaire also investigated their perceptions of the training duration's adequacy.

## Results

The majority of interns (49.4%) thought that their current curriculum was adequate but needed more clinical exposure to ophthalmic disease. Additionally, 43.1% of interns thought the curriculum was inadequate. The top three areas where interns wanted more knowledge were: emergency in ophthalmology, ophthalmic procedures, and ophthalmic physical examination. Glaucoma (mean 3.32), hyphema (mean 3.54), and eye injury & foreign body in conjunctiva (mean 3.73) exhibited the lowest confidence levels regarding disease knowledge. Notably, 50.0% had never performed incision and curettage for hordeolum, leading to low confidence (46.3%). On the other hand, most interns (49.3%) felt confident to remove foreign body from conjunctiva as 76.3% of them had done such procedure on their own.

## Discussion

The current Thai medical curriculum provides adequate introductory ophthalmology training, but enhancing instruction in complex topics such as glaucoma, hyphema, eye injury, and foreign body in conjunctiva is necessary. This could be achieved without increasing the total time spent on ophthalmology, but by focusing on more targeted instruction, especially on procedures. These findings can guide improvements in ophthalmology education, ultimately leading to better care for future eye patients.

Key Words: ophthalmology competency, medical education, medical intern, self assessment

# Tackling resuscitation skill decay with authentic sustainable assessment

**Thompson J**<sup>1</sup>

<sup>1</sup>*University Of Adelaide*

## Background

Resuscitation capabilities decline soon after training<sup>1</sup>, yet pedagogies are often at odds with sustained learning. Intensive courses, reductionist approaches to memorising algorithms and technical skills, and high-stakes barrier testing remain commonplace. Standardised marking guides define single correct student responses and judgement resides solely with assessors. Unlike the complex, unpredictable and profoundly human features of real-world events, deconstructed cases are presented with the timing, characteristics and expectations all known ahead of time<sup>2</sup>.

A program of authentic assessment which integrated the contextual elements that featured in real resuscitation cases was developed. A student-tutor consensus assessment tool was applied, which was configured to accommodate an entrustment scale framework.

## Methods

A sequential explanatory mixed-methods study was conducted to evaluate the program. We examined the dual results (student led and assessor) across a program of 5 test events spanning 10 weeks. Students and assessors were also surveyed about their experiences with the program.

## Results/Evaluation

84 students and 8 assessors produced 420 student and 420 assessor separate scores. A mean score increase of 9% across the five tests and an 18% reduction in borderline or below scores was reported. Only 13% of students were able to produce a satisfactory result in all tests. There was no statistical significance observed among the scores from eight assessors across 420 unique tests. Mean student consensus remained above 91% in all 420 tests. Participants expressed broad agreement about a preference for the authentic assessment.

## Discussion

Our work highlights the importance of competency decisions to reflect performance trends and include student judgement. Secondly, this recognises the need for valid assessment decisions to reflect the complex and unpredictable nature of these cases and that no two events are identical. Beyond confirming a local decay in local student competence, this work questions the validity of conventional credentialling practices used to prepare professionals.

## References

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## Timing's Not Everything: Shifting Perspectives on Feedback Timing in Medical Training

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<sup>1</sup>Department of Medical Education, Melbourne Medical School, University of Melbourne,

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<sup>3</sup>Department of Family & Community Medicine, University of Toronto, <sup>4</sup>The Wilson Centre, University of Toronto

### **Introduction/background:**

In medical education, formative testing, also known as 'test-enhanced learning' (TEL), has emerged as a potent teaching and learning strategy. This technique leverages active student engagement to facilitate more effective knowledge transfer. A crucial aspect of TEL is the delivery of high-quality feedback; however, there is disagreement regarding what form this feedback should take. We recently reported on the benefits of response-oriented and conceptually-focused feedback (versus binary right/wrong feedback) in the formative testing of second-year medical students. In the present study, we aimed to determine the optimal timing for delivering such feedback.

### **Methods:**

Forty-one second-year medical students were administered a formative multiple-choice question test with a mix of immediate (i.e., post-item) and delayed (i.e., post-item-block) conceptual feedback. To evaluate learning, we used 'near transfer items' (testing the application of learned concepts in homogeneous contexts) and 'far transfer items' (testing the ability of a student to generalise knowledge). Learning outcomes were evaluated immediately after the test, and then again at a one-week follow-up session.

### **Results:**

Participants generally scored lower on far transfer items than they did on near transfer items. Surprisingly, we did not find a difference between short- and long-term retention of TEL, with comparable far and near transfer scores on immediate and one-week follow-up tests. Contrary to our hypothesis, the timing of feedback did not significantly alter learning outcomes.

### **Discussion:**

This study indicates that the timing of feedback delivery (post-item versus post-item-block) does not influence the efficacy of TEL during formative multiple-choice question testing in a graduate entry medical program. We therefore suggest that educators may consider practical factors when determining appropriate TEL feedback timing in their setting. In addition, allowing students to choose their preferred feedback timing—immediate (post-item) or delayed (post-item-block)—may also be appropriate, offering students a degree of flexibility as they learn.

## Association between the Integrating Science And Practice (iSAP) assessment task and clinical performance in a Master of Nursing Practice course

Ensieh Fooladi<sup>1</sup>, Danijela Gasevic<sup>1</sup>, Malcolm Elliott<sup>1</sup>, Sheila Vance<sup>1</sup>, Lorraine Walker<sup>1</sup>, Anne Tramayne<sup>1</sup>, Md Nazmul Karim<sup>1</sup>

<sup>1</sup>Monash University, Melbourne, Australia

### Introduction

The Integrating Science and Practice (iSAP) – assessment task provides educators with insights into students' clinical reasoning abilities, reflective skills and capacity to integrate various knowledge domains. To what extent iSAP scores predict nursing students' clinical performance is less known.

### Methods

Data for Monash University students enrolled in the Master of Nursing Practice (MNP) course were analysed. The MNP is a two-year (four semesters) entry-to-practice program. An iSAP is an assessment task in the first, third, and fourth semester, each worth respectively 35%, 25%, and 30% of the total mark in relevant units. Multivariate linear regression modeling was employed to determine whether iSAP scores in the first and third semesters could predict clinical performance, as assessed by the scores in clinical placements during the last unit, which includes a 30% clinical component. The models were adjusted for age, sex (male vs. female), and residency status (domestic vs. international).

### Results

Among 104 participants, 41 individuals (39.4%) were below the age of 25, with the majority being female (82, 78.9%). 55 (52.9%) students were from international backgrounds. The mean (SD) of iSAP scores in the first semester and second semester were 20.7/35 (3.8), and 17.4/25 (4.4), respectively. The mean (SD) of the clinical component of the last unit was 95.4/100 (6.2). After adjustment, iSAP scores in the first and third semester were not associated with clinical performance ( $\beta = -0.3$ , 95% CI  $-0.7$  to  $0.1$ ;  $p=0.091$ ) and ( $\beta = -0.1$ , 95% CI  $-0.4$  to  $0.2$ ;  $p=0.517$ ).

### Discussion

While the association between iSAP scores and clinical performance could be genuine, it also prompts us to consider whether students' clinical abilities are accurately reflected due to practical challenges faced by clinical educators, such as heavy workloads, prioritising clinical care over student assessment, or adapting to diverse university assessment tools.

## Enhancing Clinical Medicine Education through Online Modules: A Comparative Analysis of Student Performance.

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<sup>1</sup>University Of New South Wales, <sup>2</sup>Prince of Wales Hospital

### **Abstract:**

Online Clinical Modules offer asynchronous self-directed learning and ensure equitable access to core knowledge across various clinical campuses. In 2023, the Discipline of Critical Care at UNSW introduced eight online Clinical Modules for medical students during the Critical Care Term. These modules included self-efficacy assessments, pre- and post-module quizzes and core knowledge sections. This study compares the results of the Critical Care modules with the end-of-year Integrated Clinical Examination (ICE).

### **Methods:**

Data from the Critical Care modules and the Integrated Clinical Examination in 2023 were collected and entered into an Excel Spreadsheet. Descriptive statistics were employed for data analysis.

### **Results:**

While the modules were not mandatory, a varying number of students attempted the quizzes, ranging from 51 to 127 for the pre-module quiz and 24 to 103 for the post-module quiz.

Comparing pre- and post-module quiz results revealed significant improvement in 7 out of 8 modules among students who attempted them. The average scores for pre- and post-module quizzes were 64% (range: 33-88%) and 73% (range: 66-80%), respectively. The self-efficacy assessment had an average score of 2.98 (range: 2.2 – 3.4).

In the Critical Care component of Integrated Clinical Examination, 297 students participated, MCQ (65%) had the lowest median score when compared to management vivas (72.5%) and OSCE (73.7%). For the MCQ, 27 (9%) and 20 (6.7%) students failed or had borderline results, compared to 15 (5%) and 7 (2.4%) students for management vivas, and 13 (4.3%) and 5 (1.7%) for OSCE, respectively.

### **Discussion:**

The pre- and post-module quiz results suggest that students who attempted the modules demonstrated an improvement in their knowledge and understanding of the topic. The results from the Integrated Clinical Examination highlight the importance of encouraging students to broaden their knowledge in clinical medicine topics, emphasizing the potential usefulness of online modules in this regard.

## The Caring Science approach to enhance learning and reduce students' stress in OSCE

**Zacharias G<sup>1</sup>**

<sup>1</sup>*University Of Canberra*

### **Abstract**

The prevalence of Objective Structured Clinical Examination (OSCE) in higher education and the impact of the stress induced by it on students has been researched in various health disciplines. It is imperative that the clinical examination setting needs to be conducive for an optimal student performance.

### **Background**

In the main, a successful result was achieved for the OSCE undertaken by undergraduate nursing students at the University of Canberra, in their first year. The common anecdotal issues linking many of the failures were explored. The unsatisfactory performance at the safety check point of accurate patient identification has resulted in this failure for the most.

### **Findings**

The evaluation to identify the potential cause revealed several possibly related psychophysiological stress responses. Furthermore, the expectation of the OSCE may have been above the level of the first-year students. The students were asked to stop the examination if they performed unsatisfactorily at a safety check point related to patient identification. This checkpoint was designed to be a targeted assessment of capability and performance in context. This expectation may have created stress among students.

### **Recommendation**

Influenced by the theory of Caring Science by Jean Watson, an American nurse theorist, setting examination guidelines based on the level of students and possible psychophysiological stress is recommended. For a different OSCE experience, an amendment of the rubric is required, in addition to all assessors being appraised of the pedagogical and philosophical relational approach allowing student ability to complete the examination.

### **Implications**

Employing the visions from a Caring Science to learning and teaching sets the scene for a complete innovation in nursing education. Moulding the future generation of nurses with much care and support may enhance their success as learners. Professional nurses equipped with the ability to inquire, explore, learn, inspire and challenge the world in psychological safe ways may have wider impacts.

### Analysis of authorship in simulation-based education studies in low- and middle-income countries: results from a systematic review

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#### Introduction

Authorship is an important mechanism to credit scholarly contributions, and may be an indicator of who leads and dictates the research agenda. Growing attention has been placed on the importance and value of local representation in research from low- and middle-income countries (LMICs). The goal of this study was to investigate how authorship is distributed for simulation-based education (SBE) research conducted in LMICs.

#### Methods

Studies using SBE in LMICs were retrieved through comprehensive searches of four databases following the PRISMA guidelines: Medline, Embase, Emcare and the Cochrane Library. Author affiliation data was manually extracted, with particular consideration of "high-status" authorship positions: first, second and senior (final). Subgroup analysis was conducted using Chi-squared tests to compare trends in authorship over five-year time periods. Results are presented using descriptive statistics and narrative synthesis.

#### Results

After initially retrieving 27,738 records, 97 studies were included. The median number of authors listed for each publication was 8 (range = 2-18). Of articles, 93/97 (96%) had an author affiliated with an LMIC. Researchers affiliated with the LMICs composed 145/291 (49%) total high-status authorship positions. Senior authors were from LMICs in 37/97 (38%) of cases. There were no significant changes to the proportion of high-status authorship positions filled by researchers from studied LMICs over time: 44% in 2002-2006; 63% in 2007-2011; 46% in 2012-2016 and 49% in 2017-2022 ( $p=0.40$ ).

#### Discussion

Most publications on SBE in LMICs include authors from the study setting. However, they are less frequently in high-status authorship positions. Despite acknowledgement of the importance of LMIC representation, the lack of improvement suggests further efforts are needed to translate this awareness into action. Researchers from high-income countries should consider equity in all research partnerships, and further efforts should be made to build research skills and capacity of local stakeholders.

## Developing introductory co-production training for service transformation

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### Introduction/Background

In line with the Royal Commission into Victoria's Mental Health System, there is a growing need for the Area Mental Health Services to place lived and living experience workforce at the centre of service design & delivery (State of Victoria, 2018). Achieving this requires services to cultivate a culture of consumer involvement which goes beyond the traditional levels of lived and living experience participation (Roper, Grey & Cadogan, 2018). One Melbourne mental health service co-designed a training program which targeted senior leaders and developed their understanding and capability of co-production as a method to support service transformation.

### Methods

Driven by the lived experience workforce a suite of resources were co-planned, co-designed, co-delivered and co-evaluated to support the development of clinical leaders and the lived and living experience workforces' understanding of what co-production is and is not. These workshops provided participants with a practical understanding of how to apply co-production, or other forms of participation, into support service transformation.

### Results/Evaluation

This training was co-delivered by the lived and living experience workforce and clinicians. Leaders who attended the training valued the hands-on nature of these workshops which were found to increase their knowledge and confidence of co-production. It was also seen to change thinking about programs and project work and how this can be conducted to benefit all parties involved. Participants indicated that the workshops provided a space to develop understanding, awareness and enthusiasm for co-production within service leadership.

### Discussion

This oral presentation will be co-delivered and will provide reflections of the learnings of one area mental health service during the design and delivery of introduction to co-production training. It will discuss how this work supported a movement towards true co-production, a vital element of transformation.

### References

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State of Victoria. (2018). Royal Commission into Victoria's Mental Health System, Final Report, Summary and recommendations, Parl Paper No. 202, Session 2018–21 (document 1 of 6).

## Influences on and of medical illustrators on the visual representation of diversity

**Larkin T**<sup>1</sup>, Annesley Z<sup>1</sup>, Nockles V<sup>1</sup>, Hammond S<sup>1</sup>, Larke B<sup>1</sup>, Parker R<sup>2</sup>

<sup>1</sup>University Of Wollongong, <sup>2</sup>University of New South Wales

### Introduction

Representation of diversity is essential in medical and health education. Gender and other biases in medical illustrations, and their impact on students' attitudes, has been reported. However, understanding the influences on and of medical illustrators in their production of visual representations is lacking. We aimed to compare the influences on the visual representation of the human body in medical illustrations from the perspective of the illustrators in 2014 versus 2023.

### Methods

In 2014 and 2023, the same 28 question survey was sent to medical illustrators via the Association of Medical Illustrators. Questions pertained to influences on the illustrators' representation of gender, ethnicity, age and body shape. Quantitative and thematic data analyses were used.

### Results

Data were of 83 participants from 2014 (55% female; aged  $49 \pm 14$  years) and 85 participants from 2023 (72% female; 2% non-binary; aged  $47 \pm 14$  years). Despite more respondents reporting an equal gender ratio in medical illustrations in 2023 versus 2014 (62% vs. 41%), gender bias was more common (67% vs. 35%). In 2023 versus 2014, there was higher agreement to diversity in representation of ethnicity (23% vs. 45%), age (36% vs. 53%), and body shape (33% vs. 38%). Major themes included sexualisation of the body, gendered stereotypes, the "average" body, impact of social networks, the connection between diversity and pathology, resource accessibility, and client demands.

### Discussion

Though in 2023 vs. 2014 there was greater awareness of the importance of the representation of diversity among medical illustrators, there was more gender bias reported; this may reflect the higher proportion of female respondents in the 2023 cohort. Since the visual representation of the human body is both impacted by and impacts stereotypes, careful attention needs to be paid to inclusion and normalisation of diversity, including that of visible (dis)ability, reflective of the human species.

## 'Flipping the chair' Transforming dental education to promote equitable oral health delivery.

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<sup>1</sup>*Te Wānanga Aronui O Tāmaki Makau Rau*, <sup>2</sup>*Yale University*

In Aotearoa, delivering comprehensive oral healthcare to rural and remote communities is a complex service challenge due to geographic isolation, limited resources, and workforce shortages. To address these disparities and establish sustainable service delivery, a strategic partnership was formed in 2022, involving Te Whatu Ora Te Tai Tokerau (Northland) local health district, local Iwi (tribe), and Auckland University of Technology (AUT).

This collaborative effort focused on addressing these challenges in Northland, an area with a high Māori population and significant dental health service challenges, notably among children. A crucial aspect of this initiative was ensuring that students had the opportunity to learn within their own communities.

To achieve this, the initiative prioritized recruiting students from Northland's rural and remote communities, many of whom faced significant barriers to accessing higher education in urban centres. By offering education opportunities in their own localities, students are provided with a chance to study in familiar surroundings, eliminating obstacles such as family commitments and travel limitations.

The deliberate recruitment of students from these rural areas, especially Northland, aims to harness local expertise and cultural understanding. Importantly, this approach not only addresses persistent workforce shortages but also encourages graduates to remain in their community's post-graduation, contributing to long-term sustainability and improved access to oral healthcare services.

This presentation will explore the strategies, outcomes, and lessons learned from this transformative educational model of students learning where they live, ensuring both access to education and creating positive change within their communities.

## A multi-faceted approach to support Indigenous students: Yarning Circles, cultural retreat & near-peer tutoring

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<sup>1</sup>Adelaide Medical School, University Of Adelaide, <sup>2</sup>Adelaide Rural Clinical School, University Of Adelaide

### Introduction/Background

The revised Australian Medical Council standards require medical schools to enhance their strategies for recruiting and supporting Indigenous students and to work collectively to improve health outcomes for Aboriginal and Torres Strait Islander peoples<sup>1</sup>. To improve Indigenous students' experience and completion of medical school, we have worked in partnership with Indigenous students to develop culturally safe supports to improve student outcomes.

### Methods

The University of Adelaide recognises the importance of listening to Indigenous students to address their under-representation in medical school cohorts, and challenges in academic progress. Utilising staff-student partnerships, we developed and implemented resources to holistically support Indigenous students. These supports were designed to support multiple aspects of the student's journey, commencing before their studies were formally underway, and including regular check-ins to enable adjustment to the supports in place.

### Results/Evaluation

Annual cultural retreats in a rural environment were introduced to create a sense of community and to empower students in their journey, and foster relationships with both peers and staff. Indigenous students suggested Yarning Circles to create a safe environment where junior students (Y1-3) are able to seek guidance and support from Y6 student mentors on challenging elements of their curriculum. We also worked in partnership with Wirltu Yarlu Aboriginal Education to deliver a workshop on assessment techniques ahead of high stakes exams.

### Discussion

Through collaborative work with Indigenous students, we have developed support systems that are culturally appropriate and have been received positively by the students. This approach has allowed us to provide customised assistance to meet the immediate needs of the students. The initial outcomes show an improvement in student performance during the pre-clinical years.

### References

1. Australian Medical Council. Joint statement in support of new medical school standards. 2023.

## The power of perspective: How individual perspectives impact the paths of students and graduates with disabilities

**Holden A<sup>1</sup>**

<sup>1</sup>*University Of The Sunshine Coast*

Despite policy reforms increasing enrolment in Higher Education (HE), students with disabilities (SWD) still have lower program completion rates than their non-disabled peers. This impacts workforce diversity and the benefits clinicians with disabilities bring to the allied health profession of Prosthetic & Orthotics (P&O). HE policy champions inclusive Universal Design (UD) to remove barriers and support SWD. However, there is a dissonance between educators' understanding of UD and its implementation. This research examines whether HE courses adequately promote SWDs' inclusion (Bunbury, 2020). To shed light on how unintended biases in HE curriculum design may disadvantage SWD, this practitioner research asks "what are the perspectives of Australian P&O academics regarding disability, inclusive practice, and inclusive assessment design." The findings are relevant to the experience of graduates and students, employers of graduates, and clinicians interacting with clients with a disability/disabilities.

### **Method**

*Subjects:* Five participants from two universities were recruited for interviews. Participant's experience level ranged from new through to experienced educators actively teaching in the discipline of P&O.

*Procedure:* 1:1 interviews were conducted via Zoom following a semi-structured Interview Guide adapted from Bunbury (2020).

*Data Analysis:* qualitative content analysis allowed for identification of key themes (Bunbury, 2020). This research asks "what are the perspectives of academics in undergraduate P&O programs and their understanding of disability, inclusive practice, and inclusive assessment design."

### **Results**

Preliminary analysis uncovered several themes around blind spots of decision makers remain such as barriers to marginalized individuals, and the dissonance between HE procedural intent versus implementation.

### **Discussion**

The results of this study show a discontent in the practical application of well-meaning intent in an increasingly resource-restricted environment. Innovative approaches can drive equitable solutions if those in decision making positions are empowered to consider what practical inclusion and accessibility to education can look like. The findings of this study apply to higher education institutions that seeks to improve equitable outcomes for students with disability/disabilities.

### **References**

Bunbury, S. (2020). Disability in higher education – do reasonable adjustments contribute to an inclusive curriculum? *International Journal of Inclusive Education*, 24(9), 964-979. <https://doi.org/10.1080/13603116.2018.1503347>

## Indigenous community-engaged assessment of students' podcasts

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### Background

The Australian Medical Council has recently strengthened accreditation requirements for health professional University courses around supporting health professional students to learn cultural safety, including valuing Aboriginal and Torres Strait Islander ways of knowing and being. Many programs are seeking a co-design and engaged approach to student curricula and assessment activities. This paper will present one potential model of Aboriginal community-engaged assessment in a medical course.

### Intervention

As part of the Adelaide Rural Clinical School (ARCS) Year 5 rural medical student curriculum, students create a 10 minute podcast of their choice related to Aboriginal health using a strengths-based approach and privileging Indigenous voice. The podcasts are assessed as a non-graded pass, barrier assessment for the course.

Each small group of 2-3 students submits a proposed topic, including a name of a potential Aboriginal interviewee and some proposed questions. They are provided with formative feedback around the cultural safety of their proposed approach, before they undertake the interview and develop their podcast.

Once podcasts are submitted, ARCS invites Aboriginal academics and academics who work in Aboriginal Health sector from across the medical school, as well as Aboriginal clinicians external to the University (eg Aboriginal health practitioners, nurses and doctors) to an assessment day where they listen to and collectively assess podcasts, providing meaningful written feedback to students.

If a podcast is considered not of standard, students have an opportunity to resubmit with an additional reflective exercise, to improve their results. This reflection is reassessed by Aboriginal academics from ARCS.

### Evaluation

The podcast assessment was introduced in 2020. Initial evaluation and continuous improvement was undertaken by the academics who run the Aboriginal health teaching program. In 2024 an external evaluation is planned, to seek a better understanding of the impact of this assessment activity on students, interviewees and Aboriginal clinicians external to the University. This presentation will provide initial results of the evaluation.

### Discussion

It is essential that culturally inclusive teaching and assessment is evaluated systematically, thoroughly and frequently, to ensure opportunities to improve and extend Indigenous cultural safety training are taken up.

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### Self-identified learning needs in a primary care rotation

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#### **Introduction**

The possible curriculum for primary care is broad. Self-directed learning, based on questions generated during clinical placements, is a valuable formative learning exercise in our undergraduate primary care program. These questions may be generated by students, patients, or supervisors, with students given freedom of topic choice to explore. We seek to develop a taxonomy of self-identified learning needs in the primary care environment, to understand the insights this provides into drivers of student learning, and potential pedagogical implications for medical educators and curriculum design.

#### **Methods**

A retrospective case analysis will be conducted of case logs from 2020 until 2023. This will examine close to 2000 records. Cases explored will be grouped into a broad taxonomy to identify types of learning topics chosen by students. Frequency of topics will be compared against 20 most common reasons for presentation to GPs as per the most recent Bettering the Evaluation and care of Health (BEACH) data. Topics identified will also be mapped to the current primary care curriculum at UNSW to assess concordance.

#### **Results**

Previous retrospective review has demonstrated that most self-directed learning is related to clinical topics, covering a very broad range. Only a minority of student self-identified learning needs focus on cases that are commonly seen in general practice and that are likely to be assessed in examinations. Development of a taxonomy of learning needs will provide insight into potential motivations for student learning in a formative assessment context. The implications for curriculum design and assessment will also be considered.

#### **Discussion**

Where assessment does not drive learning, it appears that medical students prefer sating the desire to know about the unusual and uncommon, rather than common topics. Can focusing on obscure and rare cases be helpful as a form of learning? Several further pedagogical questions arise regarding whether this type of exploration is more engaging than learning that is 'prescribed' to students, and whether free choice needs to be moderated by educators with a view to improving specific examination- and curriculum-focused outcomes. What balance is required from self-directed learning exercises to allow students to develop their own frameworks for future self-directed learning and continuing professional development?

## Is today's curriculum preparing students for tomorrow's health workforce? A case study in the curriculum of one Australian physiotherapy degree.

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### Introduction

Modernisation of health professions curriculum is required to produce graduates who can successfully meet the demands of a dynamic 21st century healthcare industry. Recent research has identified six domains that encompass work readiness within physiotherapy: Interpersonal Capabilities, Practical Wisdom, Personal Attributes, Organisational Acumen, Profession Specific Knowledge and Skills, and Professional Relevant Experiences. Macquarie University's Doctor of Physiotherapy (DPT) is a 3-year entry-level, master (extended) degree with a curriculum aiming to produce future- focused, work ready physiotherapists. The aim of this study was to determine the extent to which the DPT curriculum aligned with work readiness domains.

### Methods

A retrospective audit of curriculum material for one DPT cohort was undertaken. Curriculum content was grouped by three aspects (declared, delivered and assessed), and then mapped to the six work readiness domains through qualitative content analysis. Content was quantified to represent the extent it met capabilities within each work readiness domain, and outcomes were expressed as percentages of maximum possible scores by semester for each curriculum aspect.

### Results

The DPT had declared, delivered and assessed curriculum within all six domains of work readiness, with varying contributions across the degree. Profession Specific Knowledge and Skills domain had the highest coverage with means of 66% (SD 9), 89% (SD 11) and 84% (SD 5) for declared, delivered and assessed curriculum respectively. The least focused attention was on the Personal Attributes domain, with a mean of 5% (SD 5) declared, 43% (SD 24) delivered, and 31% (SD 21) assessed curriculum.

### Discussion

Macquarie University's DPT curriculum develops capabilities across all domains of work readiness, with the greatest contribution to the depth and breadth of discipline specific knowledge and skills required to be a physiotherapist. Further development of curriculum is needed within the Personal Attributes domain of work readiness, aligning with graduate and employer views of capabilities within this domain.

# Understanding the Gap: Stakeholder views informing a contemporary Digital Health Competence framework for a Medical Degree

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## Introduction/Background

Future doctors require diverse digital competencies to function effectively in a digital healthcare environment, but most feel unprepared. Despite the availability of digital health capability frameworks, consensus on the optimum curriculum content and delivery methods remain elusive. Our multi-phase study aims to understand what content and educational interventions will most likely provide the required learning outcomes to demonstrate digital competence within a contemporary medical degree programme at a University in Aotearoa, New Zealand. Here, we report on our initial findings for curriculum content from interviews with the key stakeholders.

## Methods

We conducted student focus groups (N=17) and semi-structured interviews with medical educators (N=12) and digital sector experts (N=11). Interview video files were transcribed, and inductive thematic analysis identified common themes. The themes were then systematically compared with several established digital health capability frameworks to evaluate content comprehensiveness, discrepancies, and omissions.

## Results/Evaluation

Four core themes were found: The Big Picture (benefits and limitations), All About the Data (patient data principles, policies, and regulatory requirements), Using Digital Technology (proficiency in technology for clinical practice), and Critical Analysis Skills (critical evidence-based scholarship). All the comparative frameworks incorporated these themes to varying extents. Insights from interviews included mixed views on student readiness for digital health. Numerous contextual constraints and barriers were also identified. A focused core minimum digital health content with associated learning outcomes integrated within the main curriculum was widely considered the most effective approach.

## Discussion

Data from our students, faculty and health sector experts has informed a comprehensive and cohesive potential structure for learning outcomes for our medical degree's contemporary digital health curriculum. Literature on effective learning of digital competencies will now be synthesised using a realist approach to inform methods of learning, and current curricular learning outcomes will be refreshed to inform future curriculum delivery and assessment.

## Designing cardiovascular physiology practical with students as partners

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### Introduction/Background

Traditional basic science practicals are perceived by healthcare students to be irrelevant, which is detrimental to their motivation to learn. This work presents a student-educator partnership model to design practical classes fit for purpose for healthcare students.

### Methods

We partnered with three medical students to design a cardiovascular physiology practical class for first-year medical students, using an open-source simulation.

The first half of the practical class was teacher-guided, where students performed pre-set experiments with set procedures and questions that guide their data interpretation. Afterwards, students self-designed experiments to investigate how to control blood pressure for a patient with pheochromocytoma.

The practical was formally taught to first-year medical students. It was evaluated using an online survey adapted from validated instruments for evaluating situational motivation (Guay et al., 2000) and perceived usefulness of the learning activity (Herbert et al., 2017).

### Results/Evaluation

A total of 317 surveys was disseminated, and 57 valid responses were received (response rate=17.98%). For situational motivation (7-point Likert scale), the mean scores ( $\pm$  SD) for intrinsic motivation (IM), identified regulation (IR), external regulation (ER) and amotivation (AM) were 5.1 ( $\pm$ 1.1), 5.5 ( $\pm$ 0.9), 4.5 ( $\pm$ 1.1) and 2.8 ( $\pm$ 1.1), respectively.

When asked to self-rate their understanding of the topic before and after the activity in a score out of 10, the mean score ( $\pm$  SD) before the activity was 4.9 ( $\pm$ 1.6), and after the activity was 7.0 ( $\pm$ 1.5). The increment was statistically significant ( $p < 0.001$ ). The survey respondents also perceived they learnt knowledge relevant for their future work.

### Discussion

The results demonstrate that self-motivation was prominent amongst the survey respondents; and the practical was useful in improving conceptual understanding and teaching work-relevant knowledge to medical students. This provides the proof of principle that engaging students as partners to design physiology practical is rewarding.

### References

Guay, F., Vallerand, R. J., & Blanchard, C. (2000). Motivation and emotion, 24(3), 175-213.  
Herbert, C., Velan, G. M., Pryor, W. M., & Kumar, R. K. (2017). BMC medical education, 17(1), 1-11. R, 11(6), CC06.

## Teaching Allied Health Students About Pain: a Scoping Review

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### Introduction/Background

Persistent pain is a significant public health concern and affects up to one-in-five of the Australian population. Of persistent pain patients, musculoskeletal complaints are a significant contributor. Pain is conceptualised as a multidimensional construct, affecting physical, social and mental health. Given these impacts, it is important that allied health professional students are taught contemporary approaches to persistent pain management. This scoping review sought to identify the strategies to teach allied health student about persistent pain and its management.

### Methods

The study is a scoping review of the literature from 2017 to 2022. Searches of the major databases, including those relevant to allied health, were undertaken. The scoping review process followed the Johanna Briggs Institute (JBI) guidelines for scoping reviews. Eligible studies were those where most participants were allied health professions students. Data were extracted from identified studies using an extraction template.

### Results/Evaluation

The database search identified 877 records of which 11 met the inclusion criteria. Studies predominantly included physiotherapy/physical therapy students, in addition to osteopathy and occupational therapy students. Pain education was delivered through didactic lectures in 10 of the 11 studies with a small number using case-based learning and simulated-based learning. Educational programs were typically of less than two hours duration. Learners were assessed using MCQs and case vignettes. Evaluation of educational outcomes was through combinations of the Neurophysiology of Pain Questionnaire, HC-PAIRS or PABS-PT. Five studies described follow up from 1-6 months post-intervention.

### Discussion

Pain education for allied health appears to be largely based on short-term experiences, with immediate improvements in pain knowledge attitudes and beliefs. However, these improvements were not sustained. Further research is required to understand if current pain education for allied health students prepares them for practice.

## Practice education: A redevelopment of intermediate clinic in speech pathology

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### **Introduction/Background**

At the 3000 level in undergraduate speech pathology at the University of Sydney, practice/clinic education experiences were very prescribed, not thought to be robust, and as such not preparing them well for their final year practice education units. In addition, due to the nature of the course structure, administrative enrolment issues were prevalent. Moreover, new Professional and Accreditation Standards from Speech Pathology Australia, facilitated a rethink of the units. While addressing the administrative issues, our team reimaged the practice experience and assessment tasks of these units.

### **Methods**

Units were redesigned using a multi-step process. Learning outcomes were reviewed in relation to the Professional Standards (2020), and the skills required of students at the start of 4000 level practice education were outlined by the practice educators. Once this was well defined, the team outlined how the students' skills would then be examined through the assessment process. This led to outlining how students would be taught to ensure strong practice skill development.

### **Results/Evaluation**

The process was evaluated via student feedback on the practice experience. In addition, data were gathered on students' preparedness for 4000-level clinic, as perceived by practice educators. Data were first gathered early 2023, on students who were taught on the former 3000-level program in 2022. The same data will be gathered on students entering Year 4 who were taught via the new 3000-level units, when semester begins 2024.

### **Discussion**

The workload was higher for students and practice educators but feedback from educators teaching into the 3000 level and their students, was positive. Data on preparedness for 4000-level are yet to be analysed, but the importance of continuous improvement across practice education experiences will be discussed.

### **References**

Speech Pathology Australia (2020) Professional Standards.

<https://www.speechpathologyaustralia.org.au/Public/Public/About-Us/Ethics-and-standards/Professional-standards/Professional-Standards.aspx>

## Medical graduates' career intention in academic medicine

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### Introduction/Background

Medical career trajectories are often serendipitous, with intrinsic motivation and a passion for teaching and/or research driving individuals toward academic medicine.<sup>1</sup> Nevertheless, there is now a notable reluctance among medical graduates to pursue academic careers, possibly due to salary sacrifice and additional training required, contributing to an ongoing shortage of medical academics.<sup>2</sup> As an introduction to academic medicine, the University of Auckland established the Clinical Medical Education Fellow (CMEF) position, offering medical graduates a structured introduction to academic medicine. The CMEFs role largely involved teaching small group learning sessions to and supporting undergraduate medical students. This study explored the lived experiences of former CMEFs, examining how this role impacted on their subsequent academic medicine career paths.

### Methods

Individual online interviews were undertaken with former CMEFs, and verbatim transcripts were analysed using Braun and Clarke's original reflexive thematic analysis.

### Results/Evaluation

Ten participants with diverse clinical backgrounds were engaged. Nine out of ten participants have not pursued academic roles since the fellowship; one held a teaching contract with the medical programme. Themes included 1) the essence of being an academic, 2) tensions between clinical practice and academia, and 3) recommendations for enhancing academic medicine's allure. While participants recognised the positive impact the CMEF role had on teaching and clinical work, significant barriers to sustained commitment to academic medicine beyond the fellowship were identified.

### Discussion

The study illuminates ways to increase academic medicine's visibility, advocates for a higher profile within medical training, and identifies some of the sacrifices. Findings underscore the need for targeted initiatives to enhance academic medicine's appeal, to attract more medical graduates into this profession.

### References

1. Chapman R, Burgess A, McKenzie S, Mellis C. What motivates junior doctors to teach medical students? *MedEdPublish*. 2016;5:45.
2. Straus SE, Straus C, Tzanetos K. Career choice in academic medicine: Systematic review. *J Gen Intern Med*. 2006;21(12):1222-9.

## From theory to touch: Practice educators' expectations of and perspectives on student's competence in people handling.

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### **Introduction/Background**

Safe practices for moving and handling people are inherent components of patient care and a core competency for health professionals including occupational therapists. Activities that involve handling and moving patients are associated with work-related musculoskeletal disorders for clinicians and can create safety concerns. Health professional students on placement are exposed to the same, if not higher risks of sustaining these injuries due to inexperience. As such, developing competence and confidence in these practices and skills is essential to ensure safe service provision as well as safety for health professionals including students. Currently, there is limited evidence to guide educators' teaching of these skills and competencies. This study aimed to explore practice educators' expectations and experiences of student skills and competence in relation to people handling.

### **Methods**

This qualitative study collected data via focus groups and analysed inductively using content analysis. Participants were occupational therapy clinical educators who had supervised at least one student in the past two years and who currently worked clinically with adults with health conditions that impact on physical capabilities and engaged in people handling activities.

### **Results/Evaluation**

Nine practice educators participated in the study. Data provided insights into their expectations of students' skills and competencies in relation to people handling at the beginning of placement, including theoretical foundations, student confidence, clinical skills, and awareness for safety. Their perceptions of students' strengths including willingness to learn, and challenges incorporating difficulties with adapting/adjusting to patient needs. Priorities for student learning as well as reflections on clinical supervision were also identified.

### **Discussion**

These findings underscore the necessity for a heightened emphasis on biomechanics, increased hands-on practice opportunities, and a greater incorporation of the application of touch in occupational therapy education. Further exploration of other stakeholders' perspectives including people with lived experience could further inform curriculum and facilitate best practice.

### Enhancing Geriatrics Care and Medical Education through Microlearning

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#### Introduction

*Microlearning, a term popular in corporate and e-learning circles, has yet to be extensively explored in medical education [1]. Defined by its delivery of concise information accessible to learners' at their preferred time and place, often through Web 2.0 platforms, microlearning presents an innovative approach for graduate medical education. This study evaluates its impact on actual practice after delivering microlearning regarding geriatric medicine to junior doctors on a surgical team.*

#### Methods

*Our intervention involved integrating a geriatrician into a vascular surgery team, establishing a unique geriatric co-management model. Junior doctors received targeted education focusing on cognitive impairment, delirium, and frailty, utilising the emerging pedagogy of microlearning as well as role modelling during ward rounds. This educational intervention was delivered by the geriatrician. The impact of the educational intervention was evaluated by measuring 12 care processes for which junior doctors were responsible before and after the intervention, through an audit of the medical records.*

#### Evaluation

*Junior doctors demonstrated a significant increase in performance across various care processes. This included a notable rise in screening for cognitive impairment (8.0% vs 76.3%,  $p < .001$ ), delirium (2.0% vs 69.1%,  $p < .001$ ), and frailty (0.0% vs 64.5%,  $p < .001$ ). Additionally, documentation of functional (34.0% vs 75.7%,  $p < .001$ ) and mobility status at admission (26.7% vs 78.3%,  $p < .001$ ) showed significant improvements.*

#### Discussion

*This study underscores the growing relevance of microlearning in medical education, particularly in catering to the learning preferences of millennials and Gen Z. Integrating microlearning with experiential learning, facilitated by a geriatrician was an effective strategy for teaching key components of comprehensive geriatric assessment to busy junior doctors, thereby enhancing care of older patients.*

#### References

1. Thillainadesan J, Le Couteur DG, Huq I, Wilkinson TJ. When I say...microlearning. Med Educ. 2022;56:791-792.

## The learning experiences of third year medical student placements with Nurse Practitioners in Aged Care. A pilot study

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### **Introduction/Background**

The Covid Pandemic impacted medical student experiences in aged care due to the vulnerability of elderly people and the strict rules around accessing nursing homes. However, it also provided an opportunity to review our curriculum and consider innovation. Understanding the complex and whole person factors that impact on the health of elderly people and the issues involved in their care is crucial for future doctors. Much of this care is based on a team-based care model in which GPs, nurse practitioners and nurses work in aged care to look after the frail and very elderly.

We created a new placement experience in which medical students are attached to a nurse practitioner visiting aged care patients at home, hostels and nursing homes.

### **Methods**

Our study employed cross-sectional surveys to explore student perspectives of the work integrated learning opportunity. When available, self-reported learning outcomes from student work-integrated learning portfolios were also collected. The use of both a questionnaire and evaluation of learning portfolios, allowed for balance of low participant burden with robust indicators of placement satisfaction and learning outcomes. Ethical clearance was granted through institutional human research ethics committee.

### **Results/Evaluation**

Thirty-eight students completed the placement. Of these students, 22 completed the online questionnaire. Students were mixed in their experiences and views on the placement. Most students identified that they had learnt new skills and knowledge. They also found that they felt they had made a positive contribution to the care of an elderly patient and had an opportunity to learn about the role and/or scope of practice for nurse practitioners. Their negative comments generally related to expectations around support and organisation.

### **Discussion**

Placing students with nurse practitioners in aged care was a positive learning experience overall but requires careful planning, organisation, and support for the mentors.

# Effects of Debriefing Attendance on Emotional Exhaustion and Performance: Understanding Mechanisms and Boundary Conditions in Healthcare Teams

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## Introduction/Background

Debriefings represent an important workplace learning activity that enhances team and organizational outcomes<sup>1</sup>. Unfortunately, barriers to implementation remain<sup>2</sup> and the current literature overlooks three aspects. First, since the existing literature focuses mainly on team performance, the impact of debriefings on individual-level outcomes remains poorly understood. Second, the mechanisms linking debriefing and outcomes are largely unknown. Third, current research primarily examines highly structured debriefings in simulated environments, leaving the impacts of debriefings in the workplace underexplored. Greater understanding of these aspects would add justifications for more regular clinical debriefings. The aim of this study was to investigate the relationships between AAR and individual performance and emotional exhaustion and to examine voice behavior as an essential mediator of these relationships.

## Methods

We conducted two survey studies: a longitudinal survey in a Swiss hospital with three assessments at 1-month intervals and a cross-sectional survey with a multinational sample of healthcare workers.

## Results

On the team level, our results consolidate previous research showing a positive effect of debriefings and external leader team performance assessment. On an individual level, our results indicate that debriefing attendance benefits individual performance and reduces emotional exhaustion. Voice behavior mediates the relationship between debriefing attendance and emotional exhaustion, but not individual performance. Further, we investigated debriefing valence, defined as the balance of positive to negative aspects discussed during the debriefing, and job stressors as moderators. Debriefing valence moderated the relationship between debriefing attendance and voice behavior: the positive effect was more pronounced when debriefing valence was more positive. Voice behavior more effectively reduces emotional exhaustion in high-stress environments.

## Discussion

Our findings introduce a shift from traditional team-level analyses of debriefings to an individual-level focus. Debriefing attendance can be conceptualized as a resource-building endeavor, providing a social space for individuals to exchange ideas and experiences to promote learning, performance, and well-being.

## References

1. Allen JA, Reiter-Palmon R, Crowe J, Scott C. Debriefs: Teams learning from doing in context. *The American Psychologist*. 2018 May;73(4):504–16.
2. Paxino J, Szabo RA, Marshall S, Story D, Molloy E. What and when to debrief: a scoping review examining interprofessional clinical debriefing. *BMJ Qual Saf*. 2023 Dec 30 (online ahead of print).

## Hotspots for change - AMC Specialist Medical Programs Standards Review

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<sup>1</sup>*Australian Medical Council*

### **Introduction/Background**

In November 2023, the AMC commenced the process of the Standards for Assessment and Accreditation for Specialist Medical Programs Review. This project aims to review the structure and content of the standards; maintain a single set of standards for specialist medical colleges continuing binational collaboration in Australia and Aotearoa New Zealand; and improve transition to practice across the medical education continuum.

This project aims to foster collaboration across specialist medical colleges, other health professions, government agencies, specialty trainees, Aboriginal and/or Torres Strait Islander and Māori stakeholders and community/consumer groups.

### **Methods**

The AMC is committed to a shared sovereignty approach involving culturally safe engagement and development led by Aboriginal and/or Torres Strait Islander and Māori people.

The review process will include extensive stakeholder consultation and engagement to inform both the initial scope of the review and the detailed proposals for changes to the Standards. Engagements will include formal written consultation periods, in-person and virtual meetings with stakeholders and a substantial stakeholder reference group.

### **Results/Evaluation**

Areas of focus of the review include program alignment with community health needs and workforce requirements; requirements for program and graduate outcomes, and curriculum design; digital capabilities; selection guidelines; trainee wellbeing and culture; health equity and cultural safety for Aboriginal and/or Torres Strait Islander and Māori Peoples; communication and processes for the accreditation of training sites; and outcomes of the review for specialist international medical graduates by Ms. Robyn Kruk AO.

### **Discussion**

An update will be provided on key 'hotspots for change' identified through stakeholder engagements to date.

The AMC is eager to engage those involved across the medical education continuum in Australia and Aotearoa New Zealand in this review process in order to achieve the best possible outcome for specialist medical programs and graduates, and ultimately the health of the community.

## Autoethnography: From clinician to workforce clinical educator

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### Introduction/Background

In January 2023, a large public health network in Victoria introduced four discipline specific allied health workforce clinical educators across community and bed-based services (3 occupational therapists and 1 physiotherapist). This was an innovative approach to addressing workforce pressures as well as providing a new career pathway in allied health. This study aimed to explore the lived experience of implementing these new roles and its impact on the allied health workforce.

### Methods

Autoethnography is an emerging qualitative research method which explores lived experience. This methodology involved the collection of individual journal entries from the workforce clinical educators over a nine-month period. These were thematically analysed identifying key themes in response to the question 'What are your experiences in transitioning from a clinician to an educator?'

### Results/Evaluation

Through the process of reflective thematic analysis, the key themes identified were: 1) Lines in the sand: defining the scope of a new role; 2) Bridging the gap: the relationship between governance and operations; 3) Recreating professional self-identity: adapting to an educator role; 4) Expert to novice: from experienced clinician to inexperienced educator; and 5) Great expectations: being a subject matter expert.

### Discussion

Autoethnography provided a unique insight into the personal and collective experience of transitioning into novel roles. Despite coming from different clinical and professional backgrounds, common themes were identified suggesting these may be transferable to others embarking on this journey. As more workforce clinical educators are implemented into public health systems in Victoria, understanding the lived experience is imperative to ensure a smooth transition into this new career pathway.

## Student Nurses' and Supervisors' Experience of a Peer Assisted Learning (PAL) Clinical Placement Model in an Australian Acute Surgical Ward: A Pilot Study.

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### **Introduction/Background:**

Huge demand for clinical placements in health settings for tertiary students is causing unforeseen challenges. Education providers are struggling to secure placement opportunities, with health care settings often at capacity. New and innovative models need to be considered, to ensure an ongoing pipeline for future workforce. The Peer Assisted Learning Model (PAL) (1) is a method of learning using matched peers, which has been implemented successfully for health student placements and is commonly utilised for allied health student placements. However, a literature review suggests this model has not been explored for nursing student placements within Victoria.

### **Method:**

This paper presents the outcomes of a PAL project piloted with Year 2 Bachelor of Nursing students on an acute ward in a public health setting in metropolitan Melbourne. As the PAL model was new for both preceptors and students, an education program was rolled out prior to commencement. A qualitative descriptive design was used to explore students' and preceptors' experience of PAL, with interviews conducted with the nursing students and their nursing preceptors. Data were analysed using an inductive thematic analysis approach.

### **Results:**

Student experience of the PAL model was overall positive and reflected previous literature highlighting increased confidence and reduction in anxiety and developed independence through open communication. Preceptors found the model more challenging and highlighted the need to optimise the clinical environment including workload management and a supportive culture.

### **Discussion:**

This paper will present the findings of the study and provoke discussion around creative and innovative ways to best promote positive outcomes for our nursing student cohorts, as well as create a robust and plentiful workforce for the future.

### **References:**

1. Topping KJ, Ehly SW. Peer-assisted learning. Mahwah, N.J. : L. Erlbaum Associates; 1998.

## Leaders' experiences of embedding a simulation-based education program in a teaching hospital: an interview study informed by Normalisation Process Theory

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There is limited research on the experiences of people in working to embed, integrate and sustain simulation programs. This interview-based study explored leaders' experiences of normalising a simulation-based education program in a teaching hospital. Fourteen known leaders across Australia and North America were interviewed. Semi-structured interviews were analysed using reflexive thematic analysis sensitised by Normalisation Process Theory, an implementation science theory which defines 'normal' as something being embedded, integrated and sustained. We used a combined social and experiential constructivist approach. Four themes were generated from the data: 1. Leadership; 2. Business startup mindset; 3. Poor understanding of simulation undermines normalisation; and 4. Tension of competing objectives. These themes were interlinked and represented how leaders experienced the process of normalising simulation. There was a focus on the relationships that influence decision-making of simulation leaders and organisational buy-in, such that what started as a discrete program becomes part of normal hospital operations. The discourse of 'survival' was strong, and this indicated that simulation being normal or embedded and sustained, was still more a goal than a reality. The concept of being like a 'business startup' was regarded as significant as was the feature of leadership and how simulation leaders influenced organisational change. Participants spoke of trying to normalise simulation for patient safety, but there was also a strong sense that they needed to be agile and innovative, and that this status is implied when simulation is not yet 'normal'. Leadership, change management and entrepreneurship in addition to implementation science may all contribute towards understanding how to embed, integrate and sustain simulation in teaching hospitals without losing responsiveness. Further research on how all stakeholders view simulation as a normal part of a teaching hospital is warranted, including simulation participants, quality and safety teams and hospital executives. This study has highlighted that a shared understanding of the purpose and breadth of simulation is a prerequisite for embedding and sustaining simulation. An approach of marketing simulation beyond simulation-based education as a patient safety and systems improvement mindset, not just a technique nor technology, may assist towards simulation being sustainably embedded within teaching hospitals.

### Keywords

simulation-based education, sustainability, normalisation, leadership, change management, implementation

## International medical graduate orientation – Setting them up to succeed

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### **Introduction/Background**

The Hunter New England Local Health District International Medical Graduate (IMG) Unit has provided orientations for IMGs since 2006. IMGs require targeted orientation, induction, and onboarding to safely practise in Australia. There are competency, cultural and communication challenges for all IMGs in a new country. We have delivered 34 orientations with a total of approximately 1000 IMGs attending.

### **Methods**

All IMGs who are new to the system are invited to participate in a targeted 3 day orientation, twice an year. The topics include Australian Health care system, communication skills, slang language, multi-disciplinary team work, prescribing, professionalism, legal issues etc. The program has been fine-tuned over the years based on feedback and changing needs. Clinical skills are taught over a half day session too.

### **Evaluation**

We have evaluated these over 17 years based on the feedback from the IMGs, supervisors and the teaching faculty. The feedback had been very positive and some of the IMGs who have worked in Australia in other settings had never had this opportunity. We will share this data at the presentation.

### **Discussion**

The aim of the discussion is to explore the range of topics and the establishment and evolution of such a program. The targeted orientation for all health care professionals entering the Australian workforce is vital for their long-term success and safety of our patients. We will discuss the range of topics and the challenges of establishing a program like this

### Navigating Feedback Challenges in Emergency Medicine: An Innovative Path for Empowering Interns

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#### **Introduction/Background**

Interns in emergency medicine frequently express dissatisfaction with feedback. Addressing this issue may be addressed by enhancing interns' feedback literacy – the ability to seek, process, and use performance information effectively. This study delves in to how interns engage with feedback in emergency departments and explores opportunities for improving this engagement. We aimed to develop and assess a program to enhance learners' feedback literacy within this specific context and to evaluate its practical application.

#### **Methods**

A design-based research approach, underpinned by agentic feedback principles, guided our year-long study. Over five iterative cycles, we engaged with sixty-six interns, developing a tailored feedback literacy program in an Australian teaching hospital. Data collection comprised qualitative evaluation surveys (n = 55), educator-written reflections (n = 5), and semi-structured interviews with interns (n = 21). We employed a framework analysis to examine the qualitative data.

#### **Results/Evaluation**

Adopting an agentic stance (i.e. learner-lead) led interns to report notable changes in the frequency and quality of their feedback conversations (e.g. improved ways to act on feedback information), making these interactions more beneficial. While shifts in feedback perceptions were evident (e.g. appreciating their role in feedback), the need to adapt their feedback engagement strategies in response to varying contextual factors, like workload, was also observed. These adjustments indicate that feedback literacy develops through an interplay of individual intention, informed by an agentic stance, and dynamically responding to the environment.

#### **Discussion**

Feedback literacy in the emergency medicine context is profoundly nuanced. Although targeted educational interventions can support feedback literacy, our findings suggest that the emergency medicine environment both enables and limits learner feedback engagement in complex ways. The study challenges the extent to which contextual feedback literacy can be deliberately cultivated outside of routine clinical work.

## Global Standards, Local Wisdom: An exploration of learning in field epidemiology training programs

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### Introduction/Background

Since 1951, Field Epidemiology Training Programmes (FETP) have been pivotal in equipping professionals to address global health crises like COVID-19. Through mentored workplace learning, FETP train professionals to detect and investigate epidemics throughout the world. Despite their extensive reach, detailed analyses of FETP pedagogies remain scarce. Our research aims to explain the principles and processes of learning in FETP: doing so could inform upscaling during pandemics, integration of local knowledges with international standards, and alignment of training approaches with modern learning theories.

### Methods

We employed a constructivist, critical action research framework and co-designed the study with participating FETP in Australia, Japan, Mongolia, and Taiwan. We conducted participant observations and in-depth interviews with 39 trainers and trainees. Data analysis followed the constant comparison of Charmaz's grounded theory and the analysis of narratives and narrative analysis of Polkinghorne. We co-interpreted findings with co-researchers of participating FETP.

### Results/Evaluation

Preliminary results reveal a common learning process across these programs, especially in technical knowledge acquisition. The process integrates the field as catalyst for learning, trainer gatekeeping of the field, self-directed learning, and engagement with decentralized learning curricula. Additionally, we found that programs depend on interactions with local communities to develop trainees' tacit knowledge, which is essential for applying technical skills in institutional and cultural contexts.

### Discussion

These findings align with theories that embrace diverse and plural knowledge systems like those of Vygotsky, Freire, Lave and Wenger, and Tuhiwai Smith. They underscore the limitations of standard competencies and curricula and highlight the need for local mentorship and knowledge integration in workplace learning. Critical learning approaches that address culture and power dynamics in knowledge systems offer pathways toward more sustainable and effective public health responses. The COVID-19 crisis reinforced the importance of community engagement. Public health workplace learning programs would do well to leverage these lessons.

## A universal educator competency framework for medical specialist training institutions

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### **Abstract:**

The training and continuing professional development of medical specialists relies upon the availability of educational resources. Most important among these resources is an interested, motivated, sustainable, and competent educator faculty. "Every patient is entitled to a good doctor and similarly, every learner deserves a good teacher."

Recognising this opportunity, ANZCA aimed to develop a universal educator competency framework for medical specialist training institutions, encompassing relevant competency domains across a range of expertise levels. The ANZCA Educator Competency Framework was developed after an analysis of educator roles and responsibilities in specialty training, a review and thematic analysis of published competency domains and frameworks, a survey of educators, expert group discussion, and feedback from stakeholders. Its broad design covers all the competencies required of educators for specialty training, from the basic competencies expected of all clinical specialists to the more advanced competencies required of oversight education committee members. It is designed to be used by any institution involved in medical specialty training to map the competencies required of different educator roles.

Six competency domains were identified: 1: Teaching and facilitating learning. 2: Assessment of learning. 3: Designing and planning learning. 4: Educational leadership and management. 5: Educational research and scholarship. 6: Educational environment, quality, and safety. Each domain consists of four elements, and each element contains progression indicators listed under three tiers of expertise: Tier one: Knowing and doing. Tier two: Understanding and adapting. Tier three: Oversight and development.

The framework encompasses all educator roles within two specialist training programs along a continuum of expertise. With its generic design, this competency framework has broad applicability in specialist medical education. Specialist training colleges may use this resource to enhance regulatory compliance with standards, guide educators in acquiring the required skill and knowledge, and support faculty development and career progression.

## Evaluation of the Family Donation Conversation workshop - a key professional skills training for staff working in organ donation

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### **Introduction**

The Australian Organ and Tissue Authority (OTA) leads the national program to improve organ and tissue donation. Since the introduction of the national program in 2009, the OTA has offered specialised professional training, information and resources for healthcare workers involved in donation and transplantation. The aim of this study was for the first time to collate and summarise evaluation ratings of the flagship professional skills training, the Core Family Donation Conversation (FDC) workshop.

### **Methods**

Participants at workshops in 2022 and 2023 completed surveys to evaluate the quality of the training, organisation of overall content, presenters, and asked to provide comments on what worked, what didn't work and ideas for improvement. Surveys were completed on each day of the workshop, and satisfaction ratings have been averaged across the 2 days for the purpose of this summary.

### **Results**

330 attendees who attended the workshop in 2022 and 2023 completed the evaluation survey. The responses were positive for most attendees. More than 90% of attendees strongly agreed that presenters were knowledgeable of the topics. 86% of attendees strongly agreed that the content was presented in an organised manner, 76% of attendees strongly agreed that the presentations were stimulating and interesting, and 82% of attendees strongly agreed that the overall quality of the training met their objectives. Common theme responses around areas that didn't work and could be improved included the length of the workshop and didactic elements.

### **Discussion**

The FDC core workshop is generally well evaluated by attendees, and the summarised evaluations are being utilised to review and modify the training offered to donation specialist staff, as part of a larger Education Review process.

## Developing clinician researchers within a health service – the impact of a structured mentoring program

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### **Introduction**

The benefits of mentorship for health professionals to enhance professional and personal development are well known. In many health services, resources to develop the confidence and capacity of clinician researchers are limited and where they exist, are delivered ad hoc. In our health service with an emerging research culture, we implemented a structured system-wide mentoring program with the aims to increase clinician research capability and activity, support development of networks, and improve career progression, confidence, and satisfaction.

### **Methods**

We paired mentees (emerging and early career clinician researchers) with established researchers from across the health service and academic partners. The 5-month pilot program included matching of mentee/mentor pairs, education seminars and workshops, facilitator support, and a networking event. Mentoring sessions were individualised to needs and goals of the mentee, and mentor expertise and capacity. The impact of the program was evaluated through a participant survey.

### **Results**

18 mentoring pairs participated in the program, with 8 mentees and 8 mentors contributing to the evaluation (44% of the cohort). All mentees and all mentors found the program valuable and would recommend participation to their research interested colleagues. All mentees reported that they had progressed their research activities and plans and developed insights into development opportunities and research pathways, and most developed their networks. Most mentors developed their mentoring skills. The structure of the program, mentoring meetings and the education sessions were reported as key enablers for success. A longer program was recommended, allowing for more flexible scheduling of mentoring meetings within clinical priorities.

### **Discussion**

Participation in this formal mentoring program positively impacted research development for interested clinician mentees and a similar program could be readily replicated in other health services. The successful implementation of the pilot indicates that the program is meeting its aims, with an annual 9-month program planned.

## Managing staff education effectively across a multi-campus radiotherapy centre

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### **Introduction:**

Peter MacCallum Cancer Centre (PMCC) is currently a large, multi-campus radiotherapy centre comprising of a main campus plus 4 geographically distinct departments. Although governed by the same overarching policies and procedures, having physically separate sites can pose a challenge to staff education, the dissemination of information and best practices. These physical challenges were further complicated by the Covid-19 pandemic, which saw a major change in our work practices and was the catalyst for providing more flexible work arrangements and learning opportunities. As the landscape of radiotherapy practice has changed, this has made focusing on providing high quality and accessible educational content to over 250+ staff a challenge.

### **Methods:**

This presentation will highlight the specific challenges and the unique way PMCC's Radiotherapy Education team have collaborated together, with management and IT services, to develop the educational resources and strategies currently being used.

### **Evaluation:**

The migration of PMCC's Radiotherapy learning content into 3 key locations has dramatically improved its accessibility for staff. iPolicy documents provide hospital policy information, the Learning Management System (LMS) provides online training modules, and the Instructional-Guide Library (IGL) provides quick step-by-step how-to guides. Regular cross-campus staff meetings are also held to facilitate the circulation of departmental updates to maintain a standard of care between all campuses and provide continued professional development. The success of these initiatives is demonstrated by an increased number of staff completing learning modules and engaging with CPD activities.

### **Discussion:**

Looking towards the future of PMCC Radiotherapy Education, the team will focus on condensing and simplifying the vast amount of learning content currently available, and other novel ways to deliver educational information. The addition of new senior Educator positions at each campus and how these roles will be incorporated within the current structure will also be a focus.

## Communication Bites!

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### Introduction/Background

Effective and efficient communication is essential for delivering safe clinical care and aligns directly with the National Safety & Quality Health Service (NSQHS) Communicating for Safety Standard. Communication skills are valued but are not considered a “clinical skill” that can be taught, practised and developed to improve outcomes for patients. With competing priorities for time-poor clinicians, education for all clinical skills needs to be adaptive, efficient and effective. At a large regional health service in Victoria, an innovative communication education program was developed to focus on teaching and demonstrating practical communication skills within existing education in-service times. The framework used is the Calgary-Cambridge model for clinical communication (Kurtz, et al. 2017) with sessions designed to provide clinicians with one individualised communication skill they can apply immediately.

### Methods

A communication strategy was developed aimed to educate clinical staff about the Calgary-Cambridge model and core communication skills relevant to clinical practice. Foundational communication skills were scaffolded in an in-service program called Communication Bites. Using the principles of adult education, sessions were interactive, learner-led and clinically relevant. Sessions were presented in multiple clinical areas, tailored to meet the unique clinical challenges specific to these areas. Each session concentrated on specific communication challenges and built on previous education. At the commencement of each session the group was asked for their unique challenges regarding the topic. A communication skill was provided and clinical application to their specific area discussed with participants.

### Results/Evaluation

Key findings included a diverse range of communication challenges. Communication skills tailored to these challenges were presented and practical application demonstrated and practised.

### Discussion

Communication for Safety is the 6<sup>th</sup> standard in the Australian Commission on Safety and Quality in Healthcare, against which services are accredited. Effective and efficient communication remains a priority for services to ensure safe clinical care and yet communication education was not routinely embedded into the regular in-service education curriculum at this health service. Ongoing requests and increasing demand for this in-service training indicates the value clinical staff place on this responsive and practical approach to clinical communication skills training.

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## Leadership impacting staff learning environments in rural health: how to win educators and influence people.

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Leadership within health services plays a pivotal role in shaping staff learning experiences, thereby influencing the quality of care delivered to communities. This abstract delves into the multifaceted impact of leadership on staff learning in the context of rural health.

In rural areas, where challenges abound, effective leadership becomes paramount in fostering a culture of continuous learning among healthcare professionals. Research indicates strong leadership promotes a supportive environment wherein staff members feel empowered to engage in ongoing education and professional development initiatives. Conversely, poor leadership can stifle learning opportunities, hinder collaboration, and contribute to staff disengagement.

Visionary leadership that emphasises the importance of education and skill enhancement motivates staff to seek out learning opportunities and stay abreast of advancements in health practice. Moreover, leadership styles fostering open communication and psychological safety facilitate a conducive learning environment in which staff feel comfortable sharing ideas, seeking feedback, and experimenting with innovative approaches to healthcare delivery. Conversely, authoritarian leadership inhibits open dialogue and stifles creativity, impeding the learning process. Leadership that neglects investment in staff development perpetuates skill gaps and limits the capacity of rural health services to meet the evolving needs of their communities.

This presentation proposes leadership practices in fact extend beyond that of the organisational structures and policies, to impact the interpersonal relationships between staff in their everyday practice. I argue supportive leadership is reflected in how individual staff treat one another; reaching beyond the traditionally held models of hierarchical leadership of manager to team members. This relational inter-connectedness significantly influences how staff learn with, from and about one another in the healthcare delivery context and is a new and unique way to look at leadership and workplace learning. This presentation emphasises some key findings from my PhD study examining the learning environments of rural health services staff.

### Understanding longer-term career intentions of new graduate physiotherapists

**Paynter S<sup>1</sup>**

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#### **Background**

The Covid-19 pandemic has exacerbated workforce shortages in many health disciplines, including physiotherapy. While the future demand for physiotherapy services is anticipated to grow, early workforce attrition is an ongoing challenge in maintaining higher skill levels and increasing workforce capacity. This study investigated the early career intentions and attitudes toward future work of physiotherapy graduates from a large urban Australian university, during their first two years of employment.

#### **Methods**

Four graduating cohorts of physiotherapists (2015-2018) completed two online surveys regarding their career intentions and attitudes. The surveys were conducted upon completion of undergraduate training (Student Survey) and two years later (Practitioner Survey). This study analysed responses from participants who completed both surveys (n=96). Descriptive statistics were derived from questions with discrete choice or Likert-scale responses, while free-text responses were analysed via inductive content analysis and relational analysis.

#### **Results**

Despite most practitioners reporting being satisfied with their careers, participants anticipating working in a physiotherapy-specific role for 10 years or longer decreased from 73% on graduation to 50% two years later. Those who decreased their future career length intention across the survey period cited a limited variety of practice, poor progression opportunities and poor work/life balance as influencing factors. Participants who increased their career length intention reported being positively influenced by support from employers (both organisational and collegial), good work/life balance, and person-organisation fit.

#### **Discussion**

This is the first published study to report the repeated assessment of career intentions and their changes across the early career period of Australian physiotherapists. Results highlight the potential positive impacts of employment settings, particularly regarding organisational support and work/life balance. This may be an important avenue to support and grow the future capacity of the physiotherapy and other health professions' workforces.

## Help us help them: A mixed methods study exploring the perspective and needs of medical students and junior doctors regarding psychological skills training

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### **Background**

Junior doctors and medical students are an important part of the healthcare ecosystem, but experience high rates of psychological distress and burnout, with implications for their wellbeing, patient care, and the sustainability of the workforce. Learning and applying appropriate psychological skills may help support these individuals and the populations they interact with.

This study was designed to explore the psychological health and perspectives of medical students and junior doctors to better understand their needs, experience of and willingness to engage with psychological skill development. Barriers, facilitators and desired outcomes of psychological skill training were sought.

### **Methods**

A mixed method design involving a cross-sectional online survey and a series of qualitative interviews was employed. 116 junior doctors and medical students completed measures of psychological health and a Barriers, Facilitators and Desired Outcomes Questionnaire (BFOQ), which was purpose-built to gauge interest in psychological training. For qualitative data, semi-structured interviews were conducted with 13 participants, exploring their perspectives on psychological skill development using the Framework Method of thematic analysis.

### **Results**

ANOVAs on BFOQ responses identified adaptability and compassion as the most desirable skills, while environmental and institutional factors were the most salient. Qualitative analysis foregrounded the impact of discouraging clinical hierarchies and innate systemic pressures, along with patient care as a motivation for psychological development. Acceptance and Commitment Therapy compassion-based techniques were well received, but there was generally a narrow understanding of what psychological skill training might encompass.

### **Conclusions**

Psychological frameworks can provide these populations with the intrapersonal skills needed to navigate the often overwhelming and increasingly complex demands of the clinical learning and practice environment, with implications for the wellbeing and sustainability of the medical workforce.

## Medical student wellness: A systematic review of interventions to enhance well-being outcomes

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### Introduction

Psychological wellbeing is vital for effective functioning and can be sustained in the long term if an individual manages daily stressors. Medical students can experience high levels of stress during medical training and are reported to have lower levels of psychological wellbeing than the general student population. A growing body of research have examined intervention programs to enhance the wellbeing of medical students, however systematic reviews of the literature tend to focus only on specific interventions such as mindfulness programs or include health professions other than medical students. This systematic review aimed to examine the effectiveness of interventions employed to enhance or maintain medical student wellbeing.

### Methods

Publications related to 'medical students', 'wellbeing interventions' and 'wellbeing outcomes' were identified from Medline and PsychInfo and restricted to publication between January 2018 to August 2023 and included studies that implemented any type of intervention focussing on medical student wellbeing.

### Results

21 studies were included in the review. A range of outcomes measures of wellbeing were reported and frequently assessed stress, anxiety and depression in students and utilised a range of measurement tools. Mindfulness-based interventions (MBT) were determined as consistently effective across studies and MBT combined with cognitive behavioral therapy (CBT) being the most effective in enhancing medical student wellbeing. Online mindfulness interventions were equally effective as in person intervention. Analysis of other forms of interventions showed positive psychology and physical exercise interventions as the most effective to improve wellbeing measures.

### Conclusion

Voluntary Mindfulness interventions with CBT and interventions involving positive psychology or physical exercise, online or in person, are effective in reducing anxiety, stress and depression. Continued focus should be placed on incorporating wellbeing measures in medical curricular to support students to manage unexpected events and other challenges throughout their studies.

## Compassion fatigue in medical students and junior doctors: a scoping review

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### Introduction/Background

Compassion fatigue (CF) occurs when helping professionals are exposed to trauma at work and lose their desire to relieve the suffering of others. While CF has been documented among nurses, nursing students and other helping professionals, its recognition among medical students and junior doctors is relatively recent. The objective of this review is to identify the extent and type of evidence on CF in medical trainees, key associated factors, and knowledge gaps.

### Methods

Our inclusion criteria for CF included burnout, secondary traumatic stress or associated terms. Medical trainee criteria included those studying medicine at university, and junior doctors in training, and excluded senior registrars or equivalent. This scoping review adhered to PRISMA-ScR guidance. Electronic databases were searched, and research data extracted. A narrative summary of results is presented.

### Results/Evaluation

Fourteen papers published between 1992 - 2023 met the inclusion criteria. The nature of research included prevalence, intervention, student personal experience, and the impact of CF.

Factors associated with CF, included workload, night shift, insufficient sleep, not taking a holiday, an expectation to be unemotional, and having a medicolegal complaint made. Secondary Traumatic Stress, a critical component of CF was associated with working in critical care, working with traumatised patients, or with patients who self-harm or suicide and working with their families. (1)

Future research is required to quantify CF prevalence in medical trainees and evaluate the efficacy of the interventions identified in our review. These interventions focused on institutional policy and management-based responses, and included ensuring adequate staffing levels, facilitating leave, screening for CF and suicide risk, promoting wellbeing, physical health, and early confidential intervention.

### Discussion

CF is associated with depression in medical trainees and negatively impacts the individual and patient care. (2) As the identified interventions require institutional and managerial responses; what is the current priority of educators/academics in combatting CF in our trainee cohorts?

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# LIVING BEYOND MEDICINE: ASSESSING THE VISIBILITY AND PROMOTION OF MENTAL HEALTH-PROMOTING PROGRAMS AND ACTIVITIES WITHIN UNDERGRADUATE MEDICAL EDUCATION CURRICULA.

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## **Introduction/Background**

The risk and prevalence of clinical depression, anxiety, burnout and suicides among medical trainees and doctors are significantly higher than that of the general population according to various research literature. The awareness about these issues and their potential impact on health service delivery and public health safety is arguably at an all-time high. There have also been recommendations for implementing mental wellbeing programs as key facets of the modern-day medical education curriculum. Many medical training institutions have signalled to implement various programs within their education curriculum to alleviate this problem. This project assesses if the public messaging which has been stemming from medical training institutions in recent times, currently matches what is practically obtainable within them.

## **Methods**

The education curricular information available on the external-facing websites of 283 undergraduate medical schools across 6 countries (Australia, New Zealand, Canada, Ireland, The United Kingdom, and The United States of America) were reviewed. Predetermined search keywords were utilized to identify curricular content targeted at promoting student mental wellbeing.

## **Results**

Only 15 of the 283 external-facing school websites reviewed provided curriculum details that contained the relevant keywords and terms upon which the search was based. 13 of them were USA schools, while the remaining 2 schools were located in Australia and the UK respectively. Their educational content included programs focused on self-care, stress management and personal wellness.

## **Discussion**

As the first part of a broader PhD project on mental wellbeing in medical curricula, this study provides a convincing argument for an improvement in the manner in which mental wellbeing programs are promoted by medical training institutions. If indeed these programs are believed to be essential to modern-day medical training, they should be promoted as such within the intended and implemented curriculum, which is publicly accessible on school websites.

## Exploring the connections between mindfulness and university health professional student wellbeing and learning experience: A scoping review

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### **Introduction / Background**

University students are exposed to multiple stressors across the lifespan of their degrees, and research has shown that most university students report high levels of psychological distress compared to the general population. Health professional students are subject to these same experiences, and evidence shows when they enter the workforce, they experience stress and burnout associated with their profession and high workload demand.

Studies suggest that mindfulness programs for this population can improve psychological wellbeing and emotional regulation; improve learning, memory and concentration; and reduce levels of anxiety and stress.

Therefore, this scoping review aimed to identify literature surrounding the use of mindfulness with health professional students in higher education, the effects of this, and the outcome measures used to determine student wellbeing and learning outcomes.

### **Methods**

A scoping review of published literature was conducted to clarify concepts related to mindfulness, student wellbeing and learning outcomes, identify the available evidence regarding the use of mindfulness in health professional education, collate and map key information, and highlight gaps in knowledge.

### **Results/Evaluation**

Analysis of the literature shows overall student wellbeing and learning outcomes associated with mindfulness include reduced stress, improved general health, improved mindfulness, reduced anxiety, and improved wellbeing.

The dosage, duration, and structure of mindfulness varied, making it difficult to determine a clear pattern in relation to effective interventions. What did become evident is that most research explored mindfulness as a stand-alone intervention, with limited research focussed on embedded or in-class mindfulness.

The most commonly used outcome measure related to wellbeing was the Perceived Stress Scale, and to measure learning or academic outcomes was the Utrecht Work Engagement Scale.

### **Discussion**

Identifying ways to support the health and wellbeing of health professionals throughout their careers is necessary to reduce the risk of burnout and ensure a sustainable workforce into the future. The gap in the research suggests further exploration of health professional education is warranted.

## Considering the health and wellbeing needs of health professionals during and after disasters and how educators can address these

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### **Introduction/Background**

Healthcare professionals, students, clinicians, and educators work across geographical regions, from capital cities through to regional, rural, and remote areas. Health professions education (HPE) is crucial to equipping them with the essential skills and knowledge to carry out their roles within their communities. In the context of climate change, there is an increase in the numbers, severity, and intensity of disaster events, especially in rural and remote areas. Our aim is to present the available evidence concerning the health and wellbeing needs of healthcare professionals during and after disasters, how this influences their capacity to practice, and to explore ways in which educators can assist to address this, including the importance of curriculum.

### **Methods**

We conducted a systematic review of the impact of experiencing a disaster on the wellbeing of healthcare providers and their practice and identified the research gaps. This presentation will report these findings and invite audience contributions to learn from each other in order to shape a future education research agenda.

### **Results/Evaluation**

The findings of the systematic review include that are high rates of post-traumatic stress disorder and depression amongst healthcare professionals in rural settings who have provided support during and after disasters. Some also suffered physical injuries as well. The review also identified the need for education to improve knowledge and skills to equip them for healthcare provision under these adverse circumstances.

### **Discussion**

Healthcare professionals can be impacted by disasters. In considering sustainability, their health and wellbeing must factor into future-planning and futureproofing. There is a clear need for further educational research around better communication, coordination, training, education, and access to resources to support healthcare professionals in times of crises, not only in Australian and New Zealand settings, but also in lower-income countries.

### Professional dilemmas: developing students' reflective capacity and response strategies through supported discussion

**Holdenson Kimura P**<sup>1</sup>, Gild M<sup>1</sup>, Scott K<sup>1</sup>, **Shone J**<sup>1</sup>, Tonga K<sup>1</sup>, Lim R<sup>1</sup>, Staples N<sup>1</sup>, Schnitzler M<sup>1</sup>

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#### **Background:**

Students learn about professionalism and unprofessional behaviour early in most medical programs. In the clinical environment, they are exposed to situations where defining and responding to unprofessional behaviour can be more nuanced and complex. The hidden curriculum is considered instrumental in shaping students' values and behaviours as they develop their professional identities. We developed a workshop to help students anticipate and respond to problematic expressions of the hidden curriculum through supported discussion and education, then explored students' reflection on learning.

#### **Methods:**

Year 2 and 4 medical students (n= 401) were invited to submit anonymous reflections of professional behaviour they had observed that had been thought-provoking. 6 submissions were selected and recorded. At a workshop, a panel of clinicians discussed memorable professionalism 'moments' that were critical to their professional identity formation. Students were then allocated into groups with a clinician facilitator, recordings were played and groups discussed and reflected on each, identified the professionalism principle and considered strategies to address these types of behaviours. After the workshop, an online questionnaire was conducted, with Likert-scale and free-text questions regarding reflections on learning and workshop evaluation. Descriptive statistics were undertaken on quantitative data; qualitative data were analysed using content analysis.

#### **Results:**

245 students completed the questionnaire (response rate 61%). Students reported having their perspectives broadened by hearing peers' reflections in small groups, the value of reflecting on real world examples of professional dilemmas and feeling more confident to take action if they encountered similar situations. The majority (89%) positively evaluated the workshop, with 69% stating it was extremely or very helpful for learning about professionalism.

**Discussion:** This activity provided a rich and stimulating educational experience, positively influencing students' understanding of professionalism principles, and increasing their reflective capacity. The workshop also increased students' confidence to manage future professionalism dilemmas in the clinical environment.

## Taking the PIS: lessons from the development of a learning series to foster professional identity formation in contemporary cohorts of clinical undergraduate medical students

**Valentin K<sup>1</sup>**

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### **Introduction/Background**

Medical education that influences professional identity aims to shape how students 'think, act and feel' as they progress through stages of learning towards becoming members of the medical workforce. (1) Whilst this transformative process is informed by knowledge of accepted clinical standards and evidence-based practice, exposures to various learning environments, workplace culture and student's own axiology and assumptions influence how this attitudinal shift takes place. (2)

### **Methods**

The Professional Identity Series (PIS) is an imbedded learning component delivered to fourth year students at Curtin Medical School. It draws upon critical pedagogy and social learning theory to assist students as they explore and experience the balancing of personal and professional boundaries in clinical education and training settings. Students engage with a combination of self-directed and peer-assisted learning throughout six PIS modules, with each designed to foster specific cognitive, non-cognitive and metacognitive competencies associated with professional identity and personal development.

### **Results/Evaluation**

The PIS has undergone significant re-development since its first iteration in 2021. Progressive student feedback from internal monitoring and steps of program re-design will be shared during the presentation as will key theoretical and pedagogical frameworks which informed series aims and associated curriculum.

### **Discussion**

The presenter will share the iterative process of program development and how it was informed by action research to improve engagement and individualise learning within the pragmatic constraints of a centralised curriculum. She will also share how it has influenced her own professional identity along the way too.

### **References**

1. Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y. Reframing medical education to support professional identity formation. 2014. *Acad Med.* 89:1446–1451.
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# Attendance monitoring in professional healthcare degrees: Methods and ethics

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## Introduction/Background

In professional healthcare degrees, attendance on placement is important due to the learning of physical skills, team-based training and patient facing work required at graduation. A tension exists between encouraging independent, or “adult learning”, and attendance requirements for both education and accreditation reasons. As opposed to tutorial or lecture attendance, placement attendance monitoring requires adaptability across multiple sites, times and supervisory models. This review looks to discuss the most common methods globally for monitoring placement attendance.

## Methods

A search was conducted of databases ‘PubMed’, ‘Medline’ and ‘Embase’ using MESH terms ((healthcare degree) OR (placement)) AND (attendance) AND (monitoring). The information retrieved from all relevant articles was reviewed and analysed to develop the review.

## Results/Evaluation

The most employed methods of placement attendance monitoring are Radio-Frequency ID (RFID), Quick Response (QR) codes, smartphone identification systems, Wi-Fi location systems, supervisor report and pen/paper check-in. There is great variation in technique used based on location, cohort size and finances.

## Discussion

Attendance on clinical placement poses a unique challenge to educators and accreditors. In healthcare attendance sites include wards, operating theatre, community clinics and aged care facilities. Students who attend teaching and placement often perform better in examinations and overall in the degree. High attendance also meets requirements of the degree and other regulatory bodies<sup>1</sup>. There is increasing use of automated methods, as well as utilizing a ‘bring your own device’ approach to separate university requirements from healthcare site compliance. Attendance monitoring should consider important stakeholders to involve including education faculty, healthcare staff and students.

## References

1. Accreditation standards and procedures. Australian Medical Council. (2023, October 30). <https://www.amc.org.au/accredited-organisations/accreditation-standards-and-procedures/>

## Empathy among freshmen healthcare professions students in Singapore varies by discipline

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### Introduction

Empathy, a cognitive-behavioral attribute, holds significance across healthcare professions. Research suggests that healthcare students are often drawn to their fields due to a desire to help others, suggesting an opportune moment for empathy-focused teaching during early stages of tertiary training. Nevertheless, studies investigating empathy of freshmen healthcare students across diverse disciplines are limited. We aim to examine Empathy and Empathic Care Intentions among freshmen healthcare professions students in Singapore.

### Methods

We present cross-sectional data collected at baseline of a longitudinal intervention study. We recruited freshmen students enrolled in nursing, dentistry, medicine, and pharmacy programs at the National University of Singapore in 2023. Empathy was measured using the Jefferson Scale of Empathy, Healthcare Professions Student Version (scores ranging between 20 and 140). Empathic Care Intentions were measured with items designed for this study (scores ranging between 7 and 49). We conducted parametric and non-parametric analyses to compare Empathy and Empathic Care Intentions across disciplines, genders, and socio-economic statuses, as appropriate.

### Results

Out of 867 students invited, 257 and 251 provided data for analysis of Empathy and Empathic Care Intentions, respectively. Mean Empathy was 108.46 (SD=10.49), and for Empathic Care Intentions, it was 42 (SD=4.36). We observed significant differences between freshmen from different disciplines for both Empathy and Empathic Care Intentions ( $p < .001$ ). Pairwise comparisons revealed that medical students had significantly higher scores than nursing and pharmacy students. While female students had higher scores in both Empathy and Empathic Care Intentions, the difference was only significant for the latter ( $p = .024$ ).

### Discussion

Freshmen medical students had significantly higher levels of Empathy and Empathic Care Intentions than their counterparts in nursing and pharmacy. Differences in admission procedures or underlying characteristics of students attracted to certain disciplines might account for this disparity. However, investigations are warranted to thoroughly explore and explain this unanticipated finding.

### References

Hojat, M. (2016). Empathy in health professions education and patient care. Springer Cham.

## Teaching as an attribute of professionalism: Investigating medical students' contribution to peer teaching and educational advocacy.

**Fentoullis M**<sup>1,3</sup>, Kalucy M<sup>1</sup>, Tavener M<sup>1</sup>, Beckmann E<sup>2</sup>

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### Introduction/Background

In an empirical study 'helping others learn' was a distinctive characteristic of healthcare-worker professionalism (Ali et al., 2020). Healthcare students typically teach and mentor one another, both formally (e.g., as institutionally employed tutors in cognate disciplines) and informally (e.g., volunteering to run clinical examination practices; education-centred advocacy through leadership/membership of student societies or representation on educational committees). However, the literature says little about such activities, or their impact on professional identities or careers.

**Aim:** To analyse qualitative data on the teaching and educational advocacy (TEA) experiences of medical students at an Australian university.

### Methods

Our Faculty-funded project (in-progress) is analysing de-identified qualitative data (approximately 46000+ words) in structured 'teaching experience portfolios' submitted by 92 self-selected final-year Medicine students who opted into 'Learning to Teach' programs from 2021-2023. Classifying described TEA activities into an ordered set of categories (taxonomy) will establish an evidence base for extension to other educational settings.

### Results/Evaluation

Though still in the data analysis phase, preliminary reviews of project data suggest a wide range of TEA activities will be identified, and naturally coalesce into a limited set of categories—our taxonomy. We anticipate this as the basis for a typology analysis (Stapley et al., 2021) and 'TEA activity checklist' relevant to multiple training institutions and healthcare professions.

### Discussion

Quality assurance in healthcare education programs focuses on visible teaching in formal curricula by paid teaching staff. As Health Professional Educators (HPEs) teaching into degree programs, we believe learning and professional benefits are also accruing from students' informal TEA experiences. Already some of our students have used their TEA experiences for recognition as university adjuncts/conjoints and Associate Fellows (AFHEA) assessed to global standards by Advance HE. With our results, we anticipate engaging HPEs globally around the potential professional identity and career benefits of supporting healthcare students in TEA activities.

### References

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## Evaluation of the feasibility of a role-emerging occupational therapy placement in schools

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<sup>1</sup>*La Trobe University*

### Introduction/Background

Practice placement education enables students' opportunities to develop the skills and knowledge needed to become professionals. In traditional placements, students practise at a site where the role of the profession is established, whereas in role-emerging placement (REP) students practise at sites where the role of the profession is non-established (Bossers et al., 1997). REP is believed to prepare students with autonomy to work in a "real work world" (Bossers et al., 1997).

Using framework developed by Bowen et al. (2009), this feasibility study aims to explore occupational therapy students and their placement supervisors' acceptance of a REP.

### Methods

In this in-progress project, thirty-three occupational therapy students and ten supervisors involved in REP at primary or secondary schools were invited to complete post-placement satisfaction questionnaire. Participants were asked to rate their satisfaction on a 5-point Likert scale on the acceptability of supervision, workload, and learning opportunities, operationalised as 80% or more indicating a rating of satisfied, or very satisfied. This is followed by three free text questions that explore the facilitators, challenges, and recommendations of the placement. Quantitative data will be descriptively analysed, and qualitative data will be analysed using thematic analysis.

### Results/Evaluation

Fifteen occupational therapy students and six supervisors completed the anonymous questionnaires. The analyses are underway to investigate the acceptability of the REP.

### Discussion

The findings will contribute to the introduction of REP, the emerging discussion around its feasibility, and a modification of the existing REP program in this project.

### References

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# An exploration of medical students' conceptualisation of medical professionalism and the influence of the informal curriculum on their understanding of doctors' professional identity

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## Introduction/Background

Although medical professionalism is viewed as a central component of curricula in Australian medical schools, the absence of a unifying definition may lead to disparities in teaching and result in deficient conceptualisation.

I sought to explore the extent and commonality of final year medical students' conceptualisation of medical professionalism, the influence of the informal curriculum on their understanding of the values and required behaviours of 'a doctor', and their perception of differences in professional identity of doctors practising in a remote setting with large numbers of Indigenous patients.

## Methods

Thematic analysis of semi-structured interviews with final year medical students

## Results/Evaluation

Although all participants had a basic understanding of medical ethics and could describe some key attributes and behaviours of medical professionals, none were able to adequately define medical professionalism, none referred to guidelines and frameworks published by governing bodies, and none described the 'contract with society' of a member of a profession, and an incomplete understanding of the humanistic attributes required of medical professionals, likely impeding their professional identity formation.

Participants in this study appreciated the need for rural and remote practitioners to be more resourceful and opportunistic.

Participants in this study appreciated the need for practitioners at sites with high numbers of Indigenous patients to be aware of the cultural and spiritual beliefs held by Indigenous patients, the different challenges Indigenous patients face because of their social determinants of health, and the importance of a flexible, patient-centred approach.

## Discussion

My study illustrates the need for a unifying definition or conceptual framework of medical professionalism to teach, assess and remediate the topic in our universities and to scaffold concepts for nascent health professionals, accompanied by an innovative program of facilitated discussion on the components of medical professionalism, the basic tenets of medical law and medical ethics and the principles of humanism and their role in medical practice.

### Cultivating Capabilities: Harnessing Microlearning within an innovative Communities of Practice approach for faculty development of educators in the Doctor of Medicine program

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#### Introduction/Background

Faculty development supports health professions educators in building knowledge and skills in learning and teaching. Microlearning offers small chunks of knowledge in 1-5 minutes, more easily applied than longer sessions for busy educators<sup>1</sup>. A community of practice (CoP) is a group who come together to learn and share information and practice<sup>2</sup>. CoPs are sustainable, innovative ways of cultivating educators andragogical knowledge development. We blended microlearning approaches, supported by a CoP for MD1 educators in the Doctor of Medicine program at the University of Melbourne's medical school in 2023. Focusing primarily on Kirkpatrick Level 1 outcomes, we investigated the satisfaction and perceived usefulness.

#### Methods

Our research utilizes a mixed-method design, capturing quantitative satisfaction and perceived usefulness scores alongside qualitative feedback from our MD1 educators. The faculty development curriculum comprised of a half day intensive on small group facilitation, followed by weekly microlearning opportunities, supported by in-person and online CoP. Quantitative measures of satisfaction and perceived utility of the sessions was paired with qualitative analysis of participant testimonials and reflections at three time points: immediately after the intensive then midway through semester 1, and the end of semester 2 2023.

#### Results

Results demonstrate high response rates (55-75%), with high levels of satisfaction at each time point, with feedback praising the program's relevance and innovative approach. Participants reported a high perceived utility of the program content, citing the flexible microlearning format and the supportive nature of the CoP as particularly beneficial.

#### Discussion

Through this research, we aim to provide preliminary evidence for the efficacy of an innovative educational strategy for cultivating capabilities for faculty development. These Level 1 findings lay the groundwork for future investigations into subsequent behavioural changes and broader educational impacts. Ultimately, the study strives to recommend strategies that foster educator competence and elevate the quality of health professions teaching and learning.

#### References

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2. Wenger-Trayner, E., Wenger-Trayner, B., Reid, P., & Bruderlein, C. (2023). Communities of practice within and across organizations: a guidebook. Social Learning Lab. <https://www.wenger-trayner.com/cop-guidebook/>

## The Who and the What of Health Professions Education PhDs: A Document Analysis

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### Introduction/Background

Health professions education (HPE) PhDs have the potential to shape PhD graduates and the HPE workforce. Yet, little is known about who completes them, and what HPE theses entail. This research aimed to map the who and what of HPE theses using document analysis. It is the first phase of a program of research designed to support PhD candidates, institutions and the HPE workforce.

### Methods

We searched the University of Melbourne and Monash University thesis repositories for HPE PhD theses. Theses were included if they were available in digital format. Data were analysed using frequencies.

### Results/Evaluation

Preliminary analysis of 75 of the 101 theses identified showed most theses were by women (69%), from a nursing background (21%), receiving some level of funding for their PhD (56%). Simulation (12%) and continuing education (12%) were the most common topics. Most used mixed methods (63%) followed by qualitative (25%) and quantitative (12%) approaches, with 78% making some use of theory. The most used data collection methods were surveys (53%) and semi-structured interviews (42%), while statistical analysis (65%), descriptive statistics (60%) and thematic analysis (52%) were the most frequent data analysis methods. Most theses (71%) included a single participant group, with participants from medicine (52%) being most common, and 12 theses (16%) included patients. Forty-eight theses (64%) included publications.

### Discussion

There is diversity of graduates, topics, and methods within HPE PhDs. The lack of theoretical framing in some theses identifies an opportunity to enhance the quality of future scholarship. Positively, just over half the PhD graduates had some level of funding; however, this raises questions about who can access funding and who can complete an unfunded PhD. Further research will gain a deeper understanding into experiences of PhD candidature, and how HPE PhDs impact those completing them.

## Australian and New Zealand nursing and midwifery educator's planetary health knowledge, perspectives, confidence and teaching practices

**Lokmic-Tomkins Z**<sup>1,2</sup>, Brand G<sup>1</sup>, Levett-Jones T<sup>3</sup>, Carr B<sup>1</sup>, Maguire J<sup>3</sup>, Catling C<sup>4</sup>, Pich J<sup>3</sup>, Fields L<sup>5</sup>, Bonnamy J<sup>1</sup>

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### Introduction/Background

*As the largest healthcare workforce, nurses and midwives require a deep understanding of planetary health to address current and future global health challenges. However, existing research highlights potential lack of knowledge, skills and confidence among health professions educators in effectively teaching planetary health (Brand et al., 2021). This study investigates the current planetary health knowledge, perspectives, confidence, and teaching practices of nursing and midwifery educators in Australia and New Zealand.*

### Methods

*An online cross-sectional survey was sent to Australian and New Zealand nursing and midwifery educators across the 45 Schools of Nursing and Midwifery between July and September 2023. The online survey consisted of 29 open- and closed-ended questions about nursing and midwifery educators' planetary health knowledge, views, confidence and teaching practices.*

### Results/Evaluation

*A total of 127 participants responded to the first open-ended question. Thereafter, 97 participants proceeded to complete the rest of the survey questions. The data suggests that while nursing and midwifery educators held mostly positive views about integrating planetary health into their teaching, they lacked the knowledge and/or confidence to do so effectively.*

### Discussion

*Our results align with prior research indicating that many health professions educators have limited knowledge and confidence to teach planetary health (Brand et al., 2021). While our study reveals overwhelmingly positive attitudes of nursing and midwifery educators towards integrating planetary health into their teaching, there is a recognized gap in knowledge and confidence, attributed to the complexity of the subject and the recent availability of frameworks for guidance. To address this, the focus should be on formulating a professional development strategy for nursing and midwifery educators, enabling them to incorporate a planetary health perspective into their current and future teaching practices.*

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## Consensus moderation in undergraduate nursing: Managing large marking teams

**Lin F**<sup>1</sup>, Prichard R<sup>2</sup>, Haddad M<sup>2</sup>, Peet J<sup>2</sup>, Chen L<sup>2</sup>

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### Introduction/Background

*The adoption of Consensus Moderation (CM) processes in higher education, particularly in the assessment of written work, is prevalent. Ensuring team comprehension of assessment requirements and delivering equitable grades across extensive cohorts requires skilled academic activity, involving professional development and the creation of safe spaces for meaningful collegial discussions. We contend that the experience of CM by both sessional and tenured staff is an important factor in its success.*

### Methods

*Employing an Implementation Science approach, this study explored staff experiences with newly introduced moderation guidelines 18 months post-implementation. Using a Qualtrics survey, beliefs, experiences, and engagement with the moderation process were examined. Descriptive and inferential statistical analyses were undertaken.*

### Results/Evaluation

*Fifty-five survey responses were included in the data analysis (63% from sessional staff). Most participants held positive beliefs about moderation as facilitating a shared understanding of assessment requirements, reported having adopted the CM guidelines to meet the aim of the moderation, and engaged in moderation processes. Two-thirds of the participants reported the success of the moderation in improved marking confidence and capability.*

*Chi-square tests revealed that tenured staff were more convinced about the consistency and timeliness of feedback than sessional staff ( $p < 0.001$ ) and well-designed assessments ( $p = 0.048$ ). Although sessional staff were less informed about and found it challenging to locate or understand the new moderation guidelines (all  $p < 0.001$ ) and exhibited more uncertainty regarding moderation's value in team building ( $p = 0.049$ ) and in the development of high-quality assessments and rubrics ( $p = 0.021$ ,  $p = 0.035$ ), they felt more supported during the moderation process than tenured staff ( $p = 0.002$ ).*

### Discussion

*Results highlight CM's complexity and recognise its potential for professional development. Ongoing efforts should ensure team members are provided with and understand accessible moderation guidelines. Disparities in experiences between sessional and tenured staff suggest the need for more effective support enabling successful moderation delivery.*

## Enhancing capabilities and careers in health professions education: An impact evaluation

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<sup>1</sup>*University Of Western Australia*

### **Introduction/Background**

There is an increased recognition that competence in health professions education (HPE) is required in the contemporary health workforce. To meet this need, the University of Western Australia (UWA) offers postgraduate units and articulated courses (Graduate Certificate – Master) in HPE. This study aimed to evaluate the impact of these units and courses during the first three years after graduation.

### **Methods**

Graduates (n=81) were invited to complete an anonymous online mixed-methods survey one, two, and three years after course completion. Data were collected on respondent characteristics, course experiences, and the impact of their studies using categorical, ordinal, and open-ended questions. Data were explored using descriptive statistics and thematic analysis.

### **Results/Evaluation**

Of the 21 respondents (26%), half identified as clinicians and half identified as educators. A third of respondents were doctors, a third were nurses/midwives, and a third were from other health professions. Almost all (n=19) educated future/current health professionals on a daily-weekly basis, frequently in interprofessional contexts (n=13,62%). 95% agreed the course met or exceeded their expectations.

Many respondents had contributed to their local and/or national HPE community in the past year through leadership roles, developing educational programs and/or publications/presentations (n=16,76%). Nine respondents (43%) received formal recognition within the previous year (e.g. promotion/award) and three (14%) reported improved career opportunities. Examples of workplace impacts reported after their course include being "better at my job", growing confidence ("in creating educational resources" and "undertaking research"), implementing "evidence-based projects and innovations", and gaining a "different view of the healthcare world."

### **Discussion**

Postgraduate qualifications in HPE meet the learning needs of health professionals with varied education-related responsibilities. Their enhanced knowledge, skills, and attitudes can improve their own professional experiences, along with positively impacting the experience of the people whose learning journeys they support and other stakeholders.

## Benefits of an embedded Learning and Teaching partner within a School of Nursing

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<sup>1</sup>Otago Polytechnic

### Introduction

The School of Nursing at Otago Polytechnic has had a dedicated learning and teaching partner since 2018. The purpose of the role is to provide support and development of staff capabilities in all aspects of pedagogy including curriculum design and development of sustainable assessment strategies to enhance learner success while also considering demands on academic staff.

### Strategies

Time and a gentle approach were needed initially to build relationships and socialise the idea of someone with no nursing knowledge being able to contribute to practice, so that academic staff did not feel undermined in their own role.

The partner has contributed to our success through education around technology, rubrics, LMS use, and teaching strategies in response to COVID-19. She has been a curriculum advisor and part of the review panel for diplomas and degrees in the school and supported staff with a learning and teaching lens on potential research projects. Suggested assessment strategies saw us move to online assessment and marking, development of guidelines for the use of AI and other technologies by learners and creating an inclusive learning environment during national lockdown.

### Outcomes

The partnership has enabled critical reflective conversations during curriculum reviews, building of assessments, integration of technology enhanced learning, and interdisciplinary research including book chapters, articles, and conference presentations. The discussions whilst robust and at times challenging have enabled the school to develop a critical lens on faculty development ensuring that the learner is at the centre of our work.

### Evaluation & Discussion

Acceptance of a learning and teaching partner with a non-specialist voice working alongside the team in the school over the last five years has led to innovative practice, willingness to reflect and learn, and an appreciation of experience and broader picture that a learning and teaching partner brings. The success of the partnership has led to the role being extended across the College of Health enabling us to build further relationships with our allied health colleagues.

## Interdisciplinary reflection by Higher Education academics using teaching squares: A scoping review.

**Harmon J**<sup>1,2</sup>, Brown A<sup>1,2</sup>, Birbeck D<sup>1,3</sup>, Crockett J<sup>1</sup>, Panadgoo S<sup>4</sup>, Nawas A<sup>4</sup>, Stringer A<sup>1</sup>, Costabile M<sup>1</sup>

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### Introduction

To explore the use of teaching squares by Higher Education (HE) academics to engage in a cycle of teaching reflection.

### Methods

A scoping review of published and unpublished research between 2012-2022. Systematic search of six (6) electronic databases identified 13 studies for review. Studies were included if reflection was undertaken on teaching and involved disciplines of Nursing, Midwifery, Pharmacy, and Biomedical Sciences. The data were extracted and presented using the Patterns, Advances, Gap, Evidence for practice and Research [PAGER] framework.

### Results

The main theme was that teaching squares led to the development of improved pedagogical skills. This skills improvement was facilitated by the creation of positive academic relationships formed by undertaking interdisciplinary observation, reflection and other serendipitous events. HE academics gained positive benefits from this process, especially those newly transitioning into academia. Some examples of these benefits included increased awareness of one's own teaching practice, deeper understanding of the student experiences and the HE academic feeling less isolated and more reassured about their teaching. Undertaking interdisciplinary reflection led to the development of social capital, resulting in increased confidence. This was evident by the development of new professional relationships from increased networking opportunities external to the faculty in which the HE academic was located. Noted there were a variety of ways reflection was being undertaken, with new insights gained during COVID-19.

### Discussion

Key outcomes for the interdisciplinary stakeholders were increased levels of confidence, learning of new ways of teaching, and insight into the student experience by undertaking interdisciplinary reflection. From a faculty perspective this is meant there was an increase of social network development and provided higher levels of social capital, especially for those transitioning into academia. The pandemic led to an increased reliance on reflection of virtual reflection, which may become the norm.



CULTIVATING INNOVATION

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**ABSTRACTS**

**DAY TWO**

**WEDNESDAY 3 JULY**



**ANZAHPE**

Australian & New Zealand  
Association for Health  
Professional Educators

## PLENARY SESSION 2

### Navigating impostorism: Fostering psychological safety in health professions education

Associate Professor Kirsty Freeman, The University of Western Australia

In this presentation, Associate Professor Kirsty Freeman will delve into the fascinating world of impostorism and its profound impact on individuals and organisations. Impostorism is a phenomenon where individuals doubt their accomplishments and fear being exposed as a "fraud," despite evidence of their competence. Impostorism can have a negative impact on an individual's perception of psychological safety. When someone is struggling with impostor phenomenon, they are less likely to feel psychologically safe in their work or social environment.

Psychological safety has been described as the belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes, and the team is safe for interpersonal risk taking. Kirsty will explore the intersection of impostorism and psychological safety, and the impact on both educators and learners. This presentation will not only highlight the prevalence of impostor phenomenon in health professions education but also provide actionable insights to help individuals with impostor phenomenon overcome their self-doubt and contribute more effectively. As we navigate the complex landscape of health professions education, let us commit to breaking the cycle of impostorism by fostering environments where every individual feels safe, supported, and empowered to achieve their full potential.

### Cultivating innovation - launching allied health placements in a new and large MD programme: lessons from the frontline

**Reddy V**<sup>1</sup>, Wood A<sup>2,3</sup>, Ross J<sup>2</sup>, Nelson D<sup>1</sup>

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#### Introduction/Background

Interprofessional collaboration leads to better patient outcomes (e.g. mortality rates), improved workforce indicators (e.g. workforce culture), and improved organisational outcomes (e.g. cost efficiencies). Providing meaningful interprofessional collaboration opportunities for medical students as early as practical in their training is key to inculcating interprofessionalism in clinical practice<sup>1,2</sup>.

An innovation of the new MD programme at the University of Queensland is for students to undertake a 14-week allied health placement in year 2. Our challenge was to rotate 70 students through at least three allied health specialties located at two Brisbane hospitals and the community over the 14 weeks.

This paper shares the experiences of, and lessons learned, by the educators, health professionals and administrative staff tasked with designing and launching this innovation. Our aim is to broaden the experiential evidence base for colleagues considering a similar venture.

#### Methods

We took a multi-level (i.e. from frontline practitioners to senior clinical leaders), multi-phasic, multi-modal approach to identify and secure 37 discrete placements across a range of allied health specialties, match them to narrow windows in 70 individual student timetables, and to create information packages for supervisors and students. To enable these outcomes, new interprofessional relationships were forged between the medical school learning community and health providers.

#### Results/Evaluation

All students were successfully placed, and information packages delivered to all students and supervisors, before the commencement of the semester. There was considerable enthusiasm and willingness on behalf of allied health supervisors to enter this new interprofessional education activity. A number of foreseen and unforeseen challenges were successfully navigated. The submission of a research proposal to study student and supervisor perceptions and learnings pre- and post-placement illustrates the positive interprofessional relationships that have resulted.

#### Discussion

Early advice on student timetable openings, clear and consistent communication on educational expectations, and cross-institutional platforms to share data in real time were identified as avoidable challenges, while late changes to placement availability were unavoidable. Clear definition of roles in the organising team, mutual respect, continuity of educational care, harnessing varied skill sets, and embracing a common goal were strengths identified in the team.

#### References

<sup>1</sup>Wei, H., Horns, P., Sears, S. F., Huang, K., Smith, C. M., & Wei, T. L. (2022). A systematic meta-review of systematic reviews about interprofessional collaboration: facilitators, barriers, and outcomes. *Journal of interprofessional care*, 36(5), 735-749. DOI: 10.1080/13561820.2021.1973975.

<sup>2</sup>Dorman, T., Conn, R., Monaghan, H., Kearney, G., Gillespie, H., & Bennett, D. (2019). Experience based learning (ExBL): Clinical teaching for the twenty-first century. *Medical Teacher*, 1-8.

<https://doi.org/10.1080/0142159X.2019.1630730> .

## “It’s so authentic – you can’t make this stuff up!”: Co-designing simulation with consumers to address cognitive bias in healthcare.

**Davis J**<sup>1</sup>, Brand G<sup>2</sup>, Bonnamy J<sup>2</sup>, Dix S<sup>2</sup>, Astoli P<sup>1</sup>, Sevenhuysen S<sup>1</sup>

<sup>1</sup>Peninsula Health, <sup>2</sup>Monash University

### Introduction/Background

*Each year adverse events are reported in healthcare, of which many relate to workforce cognitive bias. The presence and consequences of cognitive bias in healthcare contributes to health disparities, and targeted education strategies to increase awareness of bias can mitigate its influence on clinical care<sup>1</sup>. This four-part research project aimed to co-design, deliver, and evaluate a simulation-based education (SBE) program to uncover and address cognitive bias in healthcare; and establish a framework for using real incidents and experiences to improve the delivery of safe, consumer-focused healthcare. This paper focuses on part three of the project, which evaluated the impact of the co-designed interprofessional SBE scenario.*

### Methods

*Healthcare clinicians and final year nursing students were invited to participate. Consumers were embedded participants within the scenario, and provided feedback during facilitator guided debriefing. Participants were able to provide written feedback, and were invited to a semi-structured interview exploring the impact of the SBE on their clinical practice four weeks after the SBE. Thematic analysis is being conducted on the debrief recordings, interview transcripts and written feedback.*

### Results/Evaluation

*Data from four debrief recordings, 11 interviews and 15 feedback forms are currently being thematically analysed. Indicators of success will include the SBE outcomes of authenticity, raised awareness of cognitive bias in healthcare and clinical decision making, feasibility and acceptability of SBE to address cognitive bias in healthcare, and evidence to inform a co-design, interprofessional SBE framework.*

### Discussion

*To our knowledge, this is the first interprofessional SBE co-designed to specifically address cognitive bias in healthcare. Placing consumers at the centre of the co-design process shifted the education focus to a more humanistic dimension – the lived experiences of healthcare consumers<sup>2</sup>. This focus resonated with clinicians and students as being more authentic, fostering dialogue around cognitive bias, and strategies to ‘call it out’, transcending health professional groups.*

### References

1. Zestcott CA, Blair IV, Stone J. Examining the presence, consequences, and reduction of implicit bias in health care: a narrative review. *Group Processes & Intergroup Relations*. 2016 Jul;19(4):528-42.
2. Brand, G, & Dart, J. (2022). The hunter and the lion: Amplifying health care consumers' voices in health care education. *Medical Education*, 56(7), 693–695. <https://doi.org/10.1111/medu.14817>

## Escape Room in A Briefcase – a fun game to consolidate interprofessional learning for students on placement.

**Parker L**<sup>1,2</sup>, O'Connell C<sup>1</sup>, Osborn D<sup>1</sup>, Gordon E<sup>1</sup>, Fallon T<sup>1</sup>, Beyer K<sup>3</sup>

<sup>1</sup>*UQ Southern Queensland Rural Health*, <sup>2</sup>*Darling Downs Health*, <sup>3</sup>*Australian Catholic University*

### **Background**

Interprofessional (IP) education prepares undergraduate students to work collaboratively in health care teams after graduation. Southern Queensland Rural Health (SQRH) delivers Student Workshops in Interprofessional Education (SWIPE), to students while on placement in regional, rural, and remote areas, as an opportunity to develop IP practice skills. Escape Room in a Briefcase (ERiB) was designed as a highly portable activity for participants to observe and practice teaming and consolidate IP competencies taught in SWIPE.

### **Methods**

The activity, using four ERiB variations was conducted with 18 focus groups after 13 one-day SWIPE sessions (N=87) at sites across Southern Queensland. A debriefing session with facilitators occurred immediately following the ERiB activity. A semi-structured interview was used to explore the gaming experience, improvement in understanding of IP competencies and other feedback about ERiB.

### **Evaluation**

ERiB was perceived to be fun, innovative, and engaging. Although anxiety was reported, it was described as “good anxiety” with a sense of achievement when puzzles were successfully solved. Puzzles were seen as being appropriately difficult, although one ERiB was described as too “maths focused”. Students spoke about the opportunity to observe and practice IP competencies, particularly communication, role clarity and team functioning, in a psychologically safe environment with fast development of relationships. Concern was expressed that a controlling personality might change the activity dynamics. Debriefing was seen as imperative to link ERiB with IP competencies and future workplace practice. Judicious use of hints by facilitators was beneficial.

### **Discussion**

ERiB is stand-alone and portable, requiring a reasonably-sized room to conduct the activity and debriefing session. It's particularly suitable as a tool for practical application of IP skills and other teamwork-based activities in rural and remote locations. Care is needed to ensure briefcase puzzles are suitably difficult and provide the appropriate environment for IP and teaming skills to occur.

## Navigating psychological safety in interprofessional simulation debriefs

**Castelletto K**<sup>1</sup>, Ellis N<sup>1</sup>, Steer K<sup>2</sup>, Mewburn L<sup>3</sup>, Green E<sup>1</sup>, Barry R<sup>1</sup>. Dr Green E<sup>1</sup>

<sup>1</sup>Three Rivers Department of Rural Health at Charles Sturt University, <sup>2</sup>Murrumbidgee Local Health District, <sup>3</sup>Allied Health Educator, Murrumbidgee Local Health District

**Five key words that describe the topic:** interprofessional education, simulation, debriefing, health students, psychological safety

### Introduction/ Background

The aim of Interprofessional Education (IPE) is to increase professional collaboration, knowledge, and skills, leading to better health outcomes for consumers. As an adjunct to facilitating IPE, educators need to ensure students are provided a psychologically safe environment to debrief (Shinnick et al., 2011). However, limited research exists on the psychological safety of healthcare students participating in simulation-enhanced professional education (Sim-IPE) debriefs. To address this gap, a research project will be undertaken to examine methods to create psychologically safe debriefing environments at a Sim-IPE session.

### Methods

A Sim-IPE day will be run at a regional hospital for an interprofessional group of students on placement within the local health district. The day will involve a series of scenarios followed by a debrief. The aim of this research is to identify students self-reported psychological safety during these debriefs. The debriefs will be in groups of 3-5 with a facilitator prompting discussion of participants experiences and observations during the simulation scenarios. Observational data from audio-recorded group debriefs and individual students' written reflection tasks will be collected and a content analysis conducted.

### Results

Data collection will occur in March 2024 and the researchers anticipate inclusion of up to 60 students. During this presentation, the researchers will present the results of the content analysis and provide the audience with information on key factors that can be used to create a psychologically safe environment for Sim-IPE debrief.

### Discussion

This research seeks to identify if students self-report psychological safety in Sim-IPE debriefs, elements of psychological safety self-reported from the debriefs, enablers for self-reported psychological safety, and any differences in self-reported psychological safety across disciplines. Simulation-based learning is evidenced as an effective method of teaching, particularly in the field of healthcare, and has been shown to improve knowledge and skills (Rossler et al., 2021). The outcomes of this research are intended to be shared with others as practical ways to create psychologically safe environments during sim-IPE debriefs.

### References

Rossler, K., Molloy, M. A., Pastva, A. M., Brown, M., & Xavier, N. (2021). Healthcare Simulation Standards of Best Practice™ Simulation-Enhanced Interprofessional Education. *Clinical Simulation in Nursing*, 58, 49-53.

<https://doi.org/https://doi.org/10.1016/j.ecns.2021.08.015>

Shinnick, M. A., Woo, M., Horwich, T. B., & Steadman, R. (2011). Debriefing: The Most Important Component in Simulation? *Clinical Simulation in Nursing*, 7(3), e105-e111.

<https://doi.org/https://doi.org/10.1016/j.ecns.2010.11.005>

## Breaking Barriers, Bridging Minds: Uniting Nursing and Medical Students through Interprofessional Learning and Simulation

Perry S<sup>2</sup>, **Rodrigues R**<sup>1</sup>, Brewster-O'Brien D<sup>1</sup>, Dehn E<sup>1</sup>, Patel H<sup>1,2,3</sup>, Kerrison-Watkin G<sup>1</sup>, Rodrigues R<sup>2</sup>

<sup>1</sup>Central Coast Local Health District, NSW Health, <sup>2</sup>University of Newcastle, <sup>3</sup>New South Wales Ambulance

### Introduction:

Interprofessional learning (IPL) can enhance patient centered care in a collaborative and cohesive manner. Interprofessional collaboration in healthcare helps prevent both clinical and cognitive error, and can improve the patient experience and clinical outcomes<sup>1,2</sup>. The Central Coast Clinical School (University of Newcastle) facility was opened in 2022 with both nursing and medical school undergraduate programs taught.

### Aim:

Conduct the first IPL Advanced Life Support simulation day to promote the multidisciplinary team (MDT) and to facilitate participants learning the principles of interprofessional collaboration and teamwork in the undergraduate environment.

### Methods:

The exercise commenced with a lecture on the principles of advanced life support (ALS) and communication in healthcare, followed by skills stations on ALS. Six cardiac arrest simulation scenarios designed with teamwork and communication being integral to successful patient care. Adult learning principles utilized during debriefing, allowing participants to gain a clear understanding of their thoughts and actions to enhance future clinical performance.

### Results:

Twenty-eight students participated, with medical and nursing students participating as teams in each of the six simulations. They completed pre- and post-simulation surveys. Overall, 83.3% of the participants had no or limited MDT simulation experience prior to the day, and 100% rated the overall MDT simulation exercise as effective. All students reported recognising the importance of effective communication and collaboration within healthcare and understanding their roles and responsibilities within the MDT. All students stated it improved their ability to make decisions and solve problems within the MDT, with 81.3% stating they were 'very likely' to apply the skills gained.

### Conclusions:

This interprofessional simulation exercise provided evidence that IPL has significant value in contributing to improved educational practice in the areas of teamwork, communication and collaboration, not only within medical and nursing schools at an undergraduate level but fostering healthy interprofessional working relationships when transitioning to pre-vocational training.

### References:

1. Barr H, Koppel I, Reeves S, Hammick M, Freeth D. *Effective Interprofessional Education: Argument, Assumption & Evidence*. Oxford, UK: Blackwell; 2005.
2. World Health Organization. *Framework for Action on Interprofessional Education and Collaborative Practice*. Geneva: World Health Organization; 2010.

# Fostering Interprofessional Collaboration through Entrustable Professional Activities: Insights from Collaborative Pharmacist Prescribing, Ward Rounds and the Integration of EPAs in Medical Training

**Marotti S**<sup>1,2,4</sup>, Vanlint A<sup>3,4</sup>, Corre L<sup>1,4</sup>, Ween P<sup>1,4</sup>, Thomas J<sup>3,4</sup>

<sup>1</sup>SA Pharmacy, <sup>2</sup>University of South Australia, <sup>3</sup>Adelaide University, <sup>4</sup>Northern Adelaide Local Health Network

## **Introduction:**

This presentation delves into the innovative realm of interprofessional supervision and feedback within the context of Entrustable Professional Activities (EPAs). We explore the integration of EPAs in three different settings; Collaborative pharmacist prescribing training, the recent expansion into Postgraduate Year 1 (PGY1) and 2 (PGY2) Medical EPAs, and Intern Pharmacists participation in ward rounds.

## **Background:**

The adoption of Entrustable Professional Activities (EPAs) has transformed healthcare education, emphasizing competency-based learning and fostering learner autonomy. Interprofessional EPAs involve collaborative learning experiences where professionals from different healthcare disciplines engage in shared activities, offering a unique opportunity for mutual understanding and skills development.

## **Methods:**

Within our hospital network, EPA assessments have been utilised for collaborative pharmacist prescribing training, intern pharmacist participation in ward rounds, and intern assessment (AMC 2 year framework). We invited feedback from both assessors and learners for all three of these applications, gaining insights and identifying themes during the analysis. Evaluation: Our findings showcase the tangible benefits of interprofessional supervision and feedback in the context of EPAs. Through firsthand experiences in collaborative pharmacist prescribing credentialing, we demonstrate improved communication, enhanced understanding of each profession's roles, and strengthened collaboration. The expansion into PGY1 and PGY2 Medical EPAs further highlights the positive outcomes of pharmacist involvement in providing valuable feedback to medical colleagues. Our research on ward rounds explores the impact of collaborative feedback on the professional development of medical interns.

## **Discussion:**

This presentation delves into the implications of interprofessional supervision and feedback in the context of utilising EPAs. We explore the potential for this collaborative approach to shape a more cohesive healthcare team and to foster a culture of continuous improvement. Additionally, we discuss challenges encountered and strategies for optimizing interprofessional feedback within the context of EPAs.

## **Issues/Questions for Exploration OR Ideas for Discussion:**

Our presentation invites participants to engage in discussions on refining interprofessional supervision strategies using EPAs, particularly in the context of collaborative pharmacist and medical prescribing and ward rounds. We encourage exploration of the multifaceted benefits of collaborative feedback, sharing insights on overcoming challenges and identifying opportunities for expanding interprofessional engagement within healthcare education. We aim to spark conversations about the broader implications for cultivating innovation through interprofessional collaboration in learning.

### A lifelong journey of unlearning: decolonising ourselves as white nurse educators to teach cultural safety and become Indigenous accomplices

**Rix E**<sup>1</sup>, Doran F<sup>2</sup>, Wrigley B<sup>3</sup>, Rotumah D<sup>4</sup>

<sup>1</sup>University of Adelaide, <sup>2</sup>Southern Cross University, <sup>3</sup>Southern Cross University, <sup>4</sup>Southern Cross University

#### **Introduction/Background**

Indigenous nurse scholars across nations colonised by Europeans are calling for more nurse accomplices (as opposed to mere performative allies) to work alongside them and support their struggle for health equity, respect and the prioritisation of culturally safe healthcare. Despite cultural safety being mandated within the Nurses' Code of Practice, Australian white nurse educators often lack the pedagogical skills and understanding necessary to prepare future nurses to provide culturally safe care to Indigenous Peoples.

#### **Methods**

Two white nurse educators, (supported by two Indigenous colleagues) tell their stories of becoming active accomplices to Indigenous patients and colleagues. We highlight the inertia of healthcare and education institutions to confront systemic and individual racism and resistance to teaching and practicing cultural safety. We discuss institutional barriers to increasing nurse educators' ability to teach cultural safety, then provide strategies and solutions.

#### **Results/Evaluation**

Delivering cultural safety training effectively and respectfully is best achieved when Indigenous and white educators work together, at the cultural interface. Doing so requires commitment from power holders within universities and healthcare institutions. Those with the power to change systems, must do more to combat racism within universities, nursing faculties and across nursing and healthcare practice more broadly.

#### **Discussion**

Decolonising approaches to nurse education are fundamental to support and grow a nursing workforce that contributes to reducing racism and inequity by increasing cultural safety for Indigenous peoples.

Indigenous and white nurse educators teaching together at the cultural interface can increase student nurses' understanding of brutal colonial histories as the origins of health inequities for Indigenous Peoples. Deep critical reflection and ongoing commitment to decolonise nursing practice can enable nurses to work as genuinely committed accomplices. Decolonising nursing practice requires a lifelong process of unlearning for Australian white nurse educators and a commitment to becoming culturally safe teachers and practitioners.

#### **References**

Rix, E., Doran, F., Wrigley, B., & Rotumah, D. (2023) Decolonisation for health: A lifelong process of unlearning for Australian white nurse educators. *Nursing Inquiry*, <https://doi.org/https://doi.org/10.1111/nin.12616>

Doran, F., Wrigley, B., & Lewis, S. (2019). Exploring cultural safety with Nurse Academics. Research findings suggest time to "step up". *Contemporary Nurse*, 55(2-3), 156-170. <https://doi.org/10.1080/10376178.2019.1640619>

\*\*\* We respectfully use the term *Indigenous* as referring to all Aboriginal and Torres Strait Islander Peoples across Australia

## The impact of length of time in a discipline during a medical degree on career decisions: does providing more time make them more interested?

**Rudland J**<sup>1</sup>, Wilkinson T<sup>1</sup>, Salkeld A<sup>1</sup>

<sup>1</sup>University of Otago

### Aim/objectives:

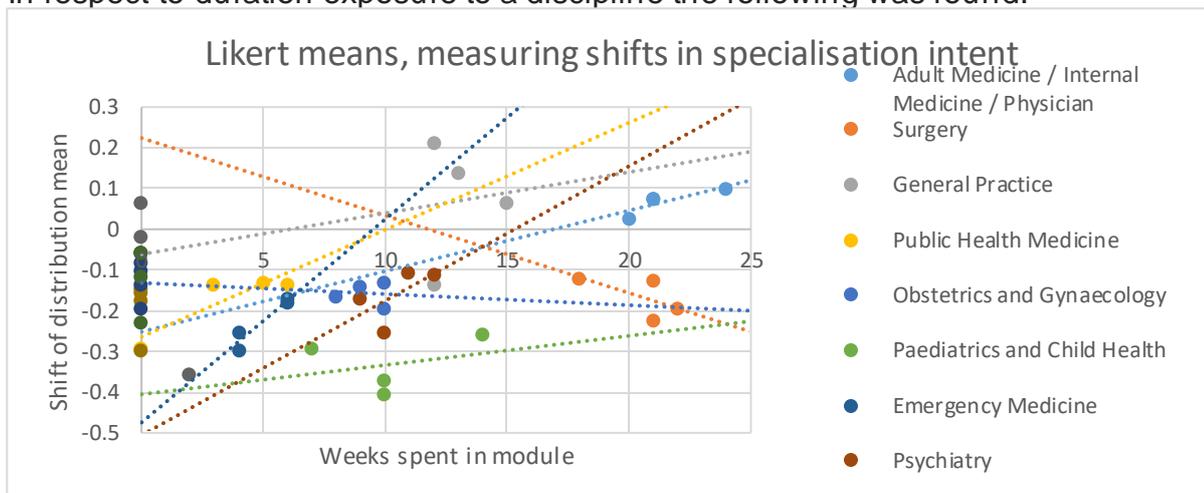
It is unclear how much time an undergraduate medical student needs in a specific discipline. However, some suggest a longer time is needed in a discipline to increase interest in that career. The aim of this study was to determine if there was any association between the length of time a student spent in a discipline in an undergraduate medical course and their choice of career.

### Method

This study used data from the Medical Schools Outcome Database (MSOD) in respect to career decisions and combined this with Medical School experience (MSE) data to include the amount of time spent in each of the major disciplines during the undergraduate course. Matched data for career preference at exit at medical school, PGY1, PGY5 and PGY8 were used (4 stages). Time in discipline was then correlated with change in career interest. We also considered data from MSOD on factors influencing career decisions across the 4 stages.

### Results:

In respect to duration exposure to a discipline the following was found.



An upward slope indicates an increase in interest for placements of longer duration; a downward slope longer times decrease interest. No consistent pattern was evident. The influence on career of experiences during medical school was ranked in the top 3 at the time of graduation but quickly declined in the postgraduate years to a ranking of 12<sup>th</sup> in PGY3. The culture of a discipline was an important influencer at all stages.

### Discussion:

Time in a discipline was a poor influence on interest in a discipline. Coupled with the data of influencers of career choice the impact of medical school dwindled substantively as the doctor progressed in their career.

### Conclusion:

It is not the quantity of exposure to a discipline but quality that seems to determine career interest.

## Physiotherapy student preparedness to work with First Nations Australians

**Arnold B**<sup>1</sup>, Horan S<sup>1</sup>, Weeks B<sup>1</sup>

<sup>1</sup>School of Health Sciences and Social Work, Griffith University

### Introduction/Background

*Physiotherapists play an important role in closing the health gap experienced by First Nations Australians. Ensuring physiotherapy students are equipped with the appropriate skills and capabilities to facilitate closing of this gap is an important consideration in their training. Students' preparedness to work with First Nations Australians and their perception of gaps in their training, however, is largely unknown.*

### Methods

*A mixed methods approach was taken. Physiotherapy students completed the Preparedness to Practise Questionnaire (PPQ) [1], and the Cultural Capability Measurement Tool (CCMT) [2]. Both surveys contained 24 items which were answered on a five-point Likert scale examining factors including respect, communication, safety & quality, and reflection & advocacy. Students were also invited to attend semi-structured interviews to better understand their perceived preparedness to work with First Nations Australians. Inductive, reflexive thematic analysis was used.*

### Results/Evaluation

*A total of 326 physiotherapy students completed the surveys. Average total scores (SD) were 87.4 (8.3) for the PPQ and 93.2 (10.0) for the CCMT (out of a possible 120), indicating students perceive limitations in their current cultural capability. Second year students scored lowest in both the PPQ 84.5 (7.7) and CCMT 90.4 (10.3) and were significantly lower than third- and fourth-year students for both surveys. Forty students also participated in semi-structured interviews. Key themes included 1. Feeling unprepared, 2. Acknowledging diverse cultural differences, and 3. Feeling they would benefit from real life experiences or observations.*

### Discussion

*Interestingly, second year students reported feeling the least prepared to work with First Nations Australians. Preliminary analysis indicates that physiotherapy students feel that they would benefit from interactive experiences or clinical observations. Despite higher survey scores, third- and fourth-year students identified a broader range of examples of how they feel unprepared to work with First Nations Australians.*

### References

1. Paul, D., S. Carr, and H. Milroy, Making a difference: the early impact of an Aboriginal health undergraduate medical curriculum. *Medical Journal of Australia*, 2006. **184**(10): p. 522-525.
2. West, R., et al., Development of a First Peoples-led cultural capability measurement tool: A pilot study with midwifery students. *Women and Birth*, 2017. **30**(3): p. 236-244.

## Building cultural competence among health professional students: A developmental perspective from psychology

**Paparo J**<sup>1</sup>, Parmar D<sup>2</sup>

<sup>1</sup>*Macquarie University*, <sup>2</sup>*Macquarie University*

### **Introduction/Background**

The importance of building a culturally responsive psychology workforce has been increasingly emphasised in the accreditation requirements for postgraduate psychology training programs. That opportunities to cultivate cultural competencies should be embedded in education from the earliest stages of training, such as bachelor's degrees (Years 1-4), through to postgraduate training programs (Years 5-6), is a clear imperative. However, few studies have considered whether the factors contributing to the development of cultural competence in psychology students differ across the developmental trajectory. The current study aimed to bridge this gap by conducting a preliminary investigation of personal and teachable factors that may differentially contribute to cultural competence for undergraduate and postgraduate psychology students, to isolate those best targeted by educational providers at different stages of health professional training.

### **Methods**

The sample consisted of 196 undergraduate and 30 postgraduate psychology students. Participants completed an online survey that examined cultural competence, as well as a range of personal (e.g., ethnicity, ethnic belonging) and teachable factors (e.g., ethnocultural empathy, multicultural self-efficacy).

### **Results/Evaluation**

Relations between cultural competence and personal and teachable factors were analysed separately for undergraduate and postgraduate students. Multiple regressions revealed ethnicity, ethnic belonging, ethnocultural empathy, and multicultural self-efficacy were all significantly associated with cultural competence among undergraduate psychology students. Significant interactions between ethnicity and both ethnic belonging and multicultural self-efficacy were also identified. Among postgraduate psychology students, multicultural self-efficacy was a stand-alone predictor of cultural competence.

### **Discussion**

The findings from this preliminary investigation suggest that in cultivating a culturally responsive psychology workforce, professional psychology educators would benefit from increasing opportunities to build multicultural self-efficacy among students. In doing so, psychology educators could draw on innovative approaches utilised in other health disciplines, where there appears to be a stronger tradition of embedding cultural competencies from the earliest stages of training.

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### Categorising the Drivers of Curriculum Renewal in Health Professional Education: A Scoping Review

**Kok D**<sup>1,2,3</sup>, Matthews K<sup>1</sup>, Xu M<sup>2,3</sup>, Trumble S<sup>2</sup>, Wright C<sup>1</sup>

<sup>1</sup>Monash University, <sup>2</sup>University of Melbourne, <sup>3</sup>Peter MacCallum Cancer Centre

#### Introduction

Renewing a Health Professional Education (HPE) curriculum is a significant undertaking, requiring substantial effort and resourcing. However, there is minimal consensus in the HPE community about the factor(s) that should initiate a renewal and how this could be objectively assessed. We performed a scoping review to determine the full range of real-world drivers of curriculum renewal documented in the HPE literature and create a categorisation of these.

#### Methods

We systematically searched the Embase, Medline, Global health and CINAHL databases for studies published between 2013-2023 that described or evaluated a single-institution curriculum renewal of an entry-to-practice HPE degree.

Following independent screening, qualifying articles were reviewed and the following data extracted: degree-type, renewal size, 'initiating driver' of renewal, and the persons and/or instrument that initiated it. Descriptive statistics were generated and inductive thematic analysis informed categorisation of the drivers.

#### Results

The search identified 1409 potential manuscripts and 491 underwent full text review. Institutions from all 8 United Nations SDG regional groups were represented, with the majority coming from North America (53.5%). 'Whole of degree' renewals represented 40% of the renewals. We identified 90 specific 'initiating drivers' which were grouped into 13 categories: Learner experience/outcome; Clinical skill/knowledge content adjustment; Pedagogical evolution; Regulatory; Logistical/business reasons; Industry bench marking; Community needs; Major world event, Educational staff factors; Sociopolitical reasons; Periodic renewal; and Technological evolution.

#### Discussion

HPE curriculum renewals had a wide variety of initiating drivers. Learner experience/outcome factors were the most commonly cited reason, followed by adjustment in clinical skill/knowledge content. <2% of renewals were triggered by a continuous quality improvement process.

By identifying the full scope of potential drivers of renewal, and proposing categories for these, these findings can be used to scaffold more comprehensive curricular review and renewal studies in the future.

# Mapping the path to planetary health and sustainable healthcare curriculum framework for nursing students: a Delphi study

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<sup>1</sup>Monash University, <sup>2</sup>School of Nursing & Midwifery, University of Technology Sydney, Australia

## Introduction/Background

Planetary Health, an interdisciplinary field, underscores the interconnectedness of human well-being and Earth's natural systems by advocating for sustainable policies safeguarding both the environment and the health of present and future generations (United Nations, 2023). Climate change threatens Planetary Health, leading to biodiversity loss, altered disease patterns, and challenges like food and water scarcity and extreme weather events, directly impacting human health (IPCC, 2022). To enhance the capacity of the nursing profession to deliver climate-related interventions, Planetary Health must be integrated into the curriculum. Our study aimed to achieve consensus on the knowledge and skills that undergraduate nursing students require to steward healthcare towards a more sustainable future.

## Methods

A two-phase real-time Delphi study was employed whereby Phase 1 generated Planetary Health, climate change and sustainability knowledge and skill statements based on a review of relevant literature. Phase 2 consisted of a real-time Delphi survey designed to seek consensus on the proposed statements from a panel of 42 experts.

## Results/Evaluation

Of the 49 survey statements, 44 (90%) achieved  $\geq 75\%$  consensus and 26 (53%) achieved  $\geq 80\%$  consensus. Three statements were removed and 32 were modified to improve clarity of language. These statements served as a foundation for curriculum framework for incorporating Planetary Health and climate change education into nursing programs has the potential to produce more environmentally conscious and socially responsible nurses.

## Discussion

The lack of agreement on crucial knowledge and skills for nursing students has impeded curriculum development and affected educators' confidence in teaching Planetary Health and climate change. This study contributes a meticulously designed framework of knowledge and skill statements, promising benefits to educators, the upcoming nursing workforce, and, ultimately, the individuals and communities served by nurses.

## References

Intergovernmental Panel on Climate Change (IPCC). Climate Change 2022: Impacts, adaptation and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Secondary Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed October 24, 2023 at: <https://www.ipcc.ch/report/ar6/wg2/>

United Nations. Climate Change. Accessed October 24, 2023 <https://unfccc.int/climate-action/un-global-climate-action-awards/planetary-health>

## Teaching and assessing reflexive practice as a core cultural safety capability: what can we learn from student reflexive assessments?

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### Introduction/Background

Cultural safety is now an accreditation and registration requirement for health professional education and practice (Ahpra & National Boards, 2020), and is increasingly being included in health sciences programs. Reflexivity is considered a core cultural safety capability, yet what this looks like in practice is not well articulated and there is little guidance on best practice approaches to teaching and learning (Dawson et al, 2022).

### Methods

Participants: Undergraduate health sciences students participating in a topic on Indigenous health and cultural safety in 2020.

Data: Student video reflection assessments; 72 videos were transcribed and analysed, reflecting a range of grade bands.

Analysis: Data analysis occurred during 2022-2023 and utilised the Levels of Reflexive Practice (LoRP) framework and thematic discursive analysis to examine depth of reflexive engagement and identify common patterns in expression of reflexivity.

### Results/Evaluation

Analysis against the LoRP demonstrated that depth of reflexive engagement broadly aligned with standard grade bands. Students demonstrated a tendency to direct their reflections outward rather than inward and were more likely to identify and critique 'racist others' and inequitable systems than their own positionality.

Discursive analysis demonstrated a pattern of accountability avoidance and performativity, collectively working to distance self from perceived racism and constructing subjectivities as non-racist and culturally safe. Conversely, most videos demonstrated underlying deficit discourse and many worked to problematise or 'other' Indigenous people.

### Discussion

Findings suggest that utilisation of a skills-based framework like the LoRP framework would assist in the assessment of reflexive capacity building. More work is needed to determine the utility of this framework more broadly.

Findings also suggest that there are common aspects of reflexive practice that students are unable or unwilling to engage with, and that positive self-presentation is prioritised in student reflexive accounts. Additional research to identify best practice teaching and learning approaches to address these gaps is required.

### References

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Dawson, J., Laccos-Barrett, K., Hammond, C. & Rumbold, A. (2022). Reflexive practice as an approach to improve healthcare delivery for Indigenous peoples: A systematic critical synthesis and exploration of the cultural safety education literature. *International Journal of Environmental Research and Public Health*, 19(11), p. 6691

## Teaching methodologies and reflective practice in optometry education: a scoping review

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### Introduction/Background

Reflective practice is an essential element of health professional practice as it encourages an inquisitive mindset, fostering life-long learning. Its potential benefits include heightened self-awareness, enhanced critical thinking, and improved patient outcomes. As optometry has expanded to a primary health care profession, there is an increased expectation for optometrists to actively reflect on their practice as part of professional development. The expectation to engage in reflective practice raises the question as to whether optometry education equips graduates for this aspect of their professional life.

The primary aim of the study was to identify teachings on reflective practice in optometry education. This was achieved by providing an overview of the teaching and learning methodologies used in optometry pre-professional education, given the limited literature identified in the initial search.

### Methods

A scoping review of papers published in English prior to 1<sup>st</sup> November 2023 was undertaken based on the framework developed by Arksey and O'Malley [1]. Six online databases were searched seeking to identify articles that analysed, evaluated, or described education for pre-professional optometry students. Two authors independently screened articles on Covidence. Data were then extracted and cross-referenced by two authors.

### Results/Evaluation

The initial search returned with 3945 titles with 120 full text reviews selected for charting and content analysis. Preliminary observations indicated that the majority of studies were focussed on improving teaching quality through various forms of empirical research with little published on reflective practice in optometry education.

In studies that explicitly incorporate reflective teachings, success seemed evident when tangible activities such as group discussions and reflective writing were introduced, as this facilitated a more deliberate form of reflection.

### Discussion

Preliminary findings suggest that reflective practice has not received due attention. Future research such as a follow up audit of curriculum and interviews with students to gauge effectiveness, is essential to ascertain success.

This research could contribute towards a consensus on what teaching reflective practice could encompass and can guide the design of future curricula.

### References

1. Arksey, H. and L. O'Malley, *Scoping Studies: Towards a Methodological Framework*. International Journal of Social Research Methodology: Theory & Practice, 2005. **8:1**: p. 19-32.

### “I have no motivation to learn about the stuff I’m not working in”: Allied Health Professionals’ Motivations for Continuing Professional Development.

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#### **Introduction/Background**

Continuing professional development (CPD) is undertaken to maintain professional skills and knowledge. In Australia, undertaking CPD is a requirement for the regulated professions and most of the self-regulated professions. Anecdotally, Allied Health Professionals (AHP) express likes, dislikes and value judgements about CPD and its effectiveness as a method of learning and influencing practice. This research aims to clarify those judgements and their effects on motivation to learn.

#### **Methods**

This study used a sequential mixed methods approach underpinned by Self Determination Theory (SDT): survey using validated scales and open text responses; and qualitative interviews. Qualitative interviews were one-on-one and up to one hour in duration. Survey responses were received from two hundred AHP and a representative sample of twenty semi-structured interviews were undertaken. Interviews were recorded and transcribed with analysis based on the SDT motivation continuum. This presentation reports on the interviews.

#### **Results/Evaluation**

Initial coding suggests participants sought CPD based on applicability to practice, to practice roles, and to their patient groups. There was also consistency in the expressions of commitment to learning across their careers, noting that as careers progress, selectivity about choice of CPD activity increases. Changes in delivery and design of CPD since the Covid pandemic were welcomed for increasing access and flexibility. Some AHPs have persistent preference for in-person learning rather than online learning. A summary of these themes derived from the interviews analysis is presented.

#### **Discussion**

Given CPD is a requirement in the regulated and self-regulated allied health professions in Australia, the findings of the interview component of this mixed methods study provide insights into the motivators for participation in CPD. These findings could assist CPD developers to ensure alignment of CPD design and delivery to AHP desires for relevance and applicability.

#### **References**

E. L. Deci and R. M. Ryan. (2008) Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, 49 (3), pp 182-185.

R. M. Ryan and E. L. Deci. (2000) Intrinsic and extrinsic motivations: Classic definitions and new directions, *Contemporary Educational Psychology*, (25), pp 54-67.

## Co-designing an innovative interprofessional Allied Health program in regional Australia.

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<sup>1</sup>Flinders University

### Introduction/Background

Levels of participation in higher education for regional students remain low<sup>1</sup>, and students face multiple challenges to study in metropolitan locations. Health outcomes in regional areas are also lower than national average, and development and retention of health workforce is key to address health inequalities<sup>2</sup>. The aim of this project was to co-design an innovative interprofessional allied health course for delivery in regional Australia.

### Methods

Three allied health programs were selected to be part of an interprofessional program developed for delivery in regional areas based on consultation with stakeholders. Co-design methodology was used with rural communities to develop an integrated model of collaboration and co-design for program development and delivery. Multiple consultations with stakeholders established an iterative review and development cycle, informing curriculum workshops with academic teams across disciplines to mapping interprofessional content.

### Results/Evaluation

A 4-year program incorporating three professions (Occupational Therapy, Speech Pathology, Physiotherapy), each separately accreditable, was designed. The program consists of a common first year, allowing scaffolding of profession specific specialist topics combined with interprofessional content. The course includes 'step out' options at each year level leading to employability in different health settings, and 'step in' options to provide flexibility. Over 200 applications for places across the three disciplines at three sites were received for a February 2024 start.

### Discussion

The project developed an innovative evidence-based community embedded model of tertiary qualification delivery in regional Australia. Success is evidenced by initial demand, local feedback, and provisional accreditation. The long-term aim is to develop a sustainable and financially viable health workforce in regional communities. Future evaluation of aspects of success and satisfaction will occur as the course rolls out. Key to the continued success of the program will be a structure of stakeholder feedback throughout the delivery. The unique design facilitates future delivery in additional sites.

### References

1 Halsey, J. (2018) *Independent Review into Regional, Rural and Remote Education Final Report*. <https://www.education.gov.au/independent-review-regional-rural-and-remote-education>

2 Office of the National Rural Health Commissioner (2019) Discussion Paper: *Rural Allied Health Quality, Access and Distribution*. Canberra: Department of Health.

## Understanding the demographics of those who leave the optometry profession. What can educators do differently to aid workforce retention?

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### **Introduction/Background**

There is a significant cost from the public purse to train future optometrists. It is therefore important that both the selection of students, and training undertaken, provide value by producing graduates who best align with public eye health needs. It is important to understand the current demographics of the profession to identify factors that may be influenced by educators.

### **Methods**

Two datasets were obtained from the Australian Health Practitioner Regulation Agency. The first included information for all new entrants to the register of optometrists from 2011-2019 and was analysed to explore demographics and practice location. The second dataset contained information for all registered optometrists, and was analysed to determine the profession's overall size, demographics and geographic distribution. A further analysis explored the demographics of those who left the register during the study period.

### **Results/Evaluation**

The optometric workforce is growing at a greater rate than the population ( $p < 0.05$ ) due to an increasing number of graduates, and is becoming increasingly feminised; both through new entrants being predominantly female and a disproportionate number of early career males leaving. There is a geographic maldistribution with both existing optometrists and new entrants choosing to practice in metropolitan areas at a greater proportion than the Australian population. Practice location did not affect whether or not a registrant left the register however further training did, with those who have not undertaken training for therapeutic endorsement leaving the register at higher rates.

### **Discussion**

The increasing feminisation of early-career optometrists and other societal factors influencing the demographics of the profession is worthy of further investigation to determine if alterations to current selection and training programs would be beneficial for retention and encouragement of rural practice. Current strategies implemented by training programs to encourage rural practice do not appear to have significantly shifted the geographic maldistribution.

### **References**

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## Widening the lens: an integrative literature review of activities promoting critical consciousness in physiotherapy and occupational therapy curricula.

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<sup>1</sup>*Curtin University*

### Background

The physiotherapy (PT) profession follows a biomedical model in educating students. Recent trends highlight the importance of considering psychosocial factors in clinical reasoning. Other health disciplines more readily embrace psychosocial factors with sociological lens that incorporates a critical pedagogy. Such pedagogies aim to raise a critical consciousness in students about how structural systems can lead to inequitable and unjust outcomes. PT researchers have called for integration of critical theories into curricula with this aim, but challenges arise due to an already crowded curriculum. This study aims to examine relevant literature for instances of incorporating critical pedagogies in two related health professions: PT and Occupational Therapy (OT).

### Methods

This is part of a wider study aimed at developing a model for curriculum screening. This stage utilised an integrative literature review methodology (Torraco 2005). Inclusion criteria encompassed full-text articles in English from January 2013 to September 2023, describing learning activities in PT or OT curricula. Utilising search terms from Agrawal et al.'s (2023) medical education study, thematic analysis of selected articles identified jurisdictions, curricula concepts, learning activities, and disciplinary involvement.

### Results

Of 335 PT and 339 OT articles from database searches, 19 PT and 20 OT sources met inclusion criteria. Differences emerged in curricula concepts, jurisdictions, activity types, and the proportion of single-discipline studies. PT themes often centred on individual-level advocacy/social justice, while OT encompassed macro-level issues. PT activities were more frequently with other disciplines. Both disciplines commonly featured fieldwork activities, with student reflection less emphasized in PT compared to OT.

### Discussion

This study aligns with prior commentary, indicating that, unlike certain health professions, PT literature lacks a clear emphasis on concepts fostering the cultivation of graduate critical consciousness. Further investigation is necessary to assess the extent to which PT academics in Australia incorporate these concepts directly or indirectly into curricula.

### References

Agrawal N, Lucier J, Ogawa R, Arons A. Advocacy Curricula in Graduate Medical Education: an Updated Systematic Review from 2017 to 2022. *J Gen Intern Med.* 2023 Sep;38(12):2792-2807. doi: 10.1007/s11606-023-08244-x. Epub 2023 Jun 20. PMID: 37340255; PMCID: PMC10507002.

Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review*, 4(3), 356-367. <https://doi.org/10.1177/1534484305278283>

## Students' perceptions of case-based learning in midwifery education.

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*Title: Students' perceptions of case-based learning in midwifery education.*

### **BACKGROUND:**

Case-based learning (CBL) is often used in health professions education to explore authentic clinical scenarios to support student learning. However, CBL is implemented in many ways. Some curricula use new cases each semester/trimester, some continue cases across the year, and others use a 'caseload' of women across a midwifery degree, enabling students to follow the history of women in their caseload. This study aimed to explore students' perceptions of varied models of CBL used to support student learning to prepare for clinical midwifery practice and continuity of care.

### **METHODS:**

This exploratory, descriptive study explored midwifery students' perceptions from three Australian universities using CBL scenarios in their curricula. Second, third, and fourth-year BNBM students participated in focus group discussions. Audio recordings were transcribed and thematically analysed.

### **RESULTS:**

Students across all programs valued CBL for developing their critical thinking and clinical decision-making. They felt they were good discussion starters to learn together. The variety, breadth and depth of cases reflected clinical practice. Students appreciated when the CBL case was used both in a tutorial and in their skills laboratories. However, students found the CBLs used were generally not reflective of continuity of care, with new cases introduced frequently. When the same case returned for a subsequent 'pregnancy', they did not recognise this, treating it as just another case. Recommendations for improvement included increasing accessibility with transcripts and/or subtitles of video and audio cases and using images to connect the text with a 'woman'. Whilst some wanted more cases, having too many cases at a time was considered not reflective of clinical practice. More detail, akin to a medical record, was desired.

### **DISCUSSION:**

Scaffolding learning across the duration of a degree is a critical pedagogical practice. CBL is beneficial, but it is important to seek student feedback to improve educational practices.

### **KEYWORDS:**

case-based learning, pedagogy, midwifery, quality improvement

## Building research capacity and cultivating partnerships between medical students and research supervisors: leveraging the potential of a research elective course

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### Introduction/Background:

Developing the capacity for engagement of medical students in health-related research activities is critical to advancing their understanding of how medical discoveries are made [1]. In 2019 the University of Queensland developed a 16-week Foundations of Medical Research (FoMR) elective course providing students protected time for hands-on experience in conducting a health-related research project. Critical to the course is securing appropriate research supervisors who are passionate about sharing their skills and generous in giving their time and resources to provide a meaningful research experience [2]. A project was implemented to monitor the quality of the course and its sustainability. The aim was to evaluate the approach of building research capacity across all stakeholders by involving the students in cultivating partnerships with supervisors.

### Methods:

A mixed-methods approach combining quantitative descriptive data with qualitative insights from students and supervisors was employed. UQ ethics approved the project. The course learning activities include interactive lectures, workshops, project support sessions, a 16-week research experience, and a final symposium. Assessment includes tracking student motivation, research progression via milestones, and evaluating the perceived impact on their research skills and collaborative capabilities.

### Results/Evaluation:

Findings suggest a link between student participation in the research elective course and increased research engagement after the course finishes. Increasing numbers of students (85%) who undertake the FoMR stay with their supervisor to continue the same research or become involved in a different project. Qualitative feedback underscores the positive contribution of students to the formation of and maintaining partnerships with the supervisor and their research institution. This approach was described by supervisors as rewarding in cultivating a collaborative research environment and fostering closer ties with the medical students.

### Discussion:

This study continues to provide insights into an adaptable model for maintaining a practical approach to integrating research experience into the medical curriculum.

### Keywords:

Research capacity, Research Supervisors, Partnerships; Medical students; Research elective course.

### References

1. Mullan, J., Mansfield, K., & Metusela, C. (2022). Building research capacity for rural and regional medical students – University of Wollongong. *Research in the Medical Curriculum*, Volume 1 – A window on innovation and good practice.
2. Hart *et al.* Research supervisors' views of barriers and enablers for research projects undertaken by medical students; a mixed methods evaluation of a post-graduate medical degree research project program. *BMC Medical Education* (2022) 22:370. <https://doi.org/10.1186/s12909-022-03429-0>

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### The Dynamics of Team Based Learning in Changing Times

**Howard R**<sup>1</sup>, Charles K<sup>1</sup>, Burgess A<sup>1</sup>

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#### **Background:**

The Doctor of Medicine degree at the University of Sydney is a flipped teaching program where students engage with online videos, in person teaching, and practicals on a teaching theme of the week in Year 1. Team Based Learning (TBL) is the capstone student-centered team activity based on the theme of the week which aims to contextualize, integrate, and consolidate key basic and clinical science topics. In response to emerging student feedback and recent challenges to deliver the TBL in its original format, innovations leading to several necessary format adaptations were implemented.

#### **Methods:**

Unit of study evaluations across all themed blocks and across year cohorts were used to garner student feedback. Repeating themes were used to inform the various iterative changes to the TBL format, from the initial in person TBL structure, the changes in response to Covid shutdown, and current implemented design.

#### **Results/Evaluation:**

Early challenges encountered were recruitment of large number of skilled teaching staff and student dissatisfaction with perceived teaching inconsistencies across TBL rooms. In the recent era of physical distancing, the TBL was moved to an online synchronous and asynchronous format including an online review of the case with a small expert panel. Together with the subsequent and current hybrid model, student concerns regarding perceived inconsistencies and provided satisfying group time to focus on the case scenarios was addressed. Post session completion of a mechanistic diagram which is now assessed provides deep learning which was previously inconsistent in the fully in person format.

#### **Discussion**

The TBL format has transformed its format and delivery since it was first introduced and addressed student feedback and changing pressures in unprecedented times. The re-work of the TBL has maintained the pedagogical framework and the critical aspects of teamwork and resulted in a format that addressed emerging challenges.

## Applying a visible thinking approach to the teaching of inpatient blood glucose management to final year medical students

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<sup>1</sup>Monash University, <sup>2</sup>University of Melbourne

### Introduction/Background

Managing blood glucose levels (BGLs) is a regular but challenging task for junior doctors. Informed by cognitive apprenticeship theory, this applied research study firstly sought to identify how pre-intern medical students approach inpatient glycaemic management decisions and secondly, examined the effect of applying a “visible thinking” framework to teaching BGL management

### Methods

Final-year Monash University medical students (Peninsula campus, Australia) received a two-part interactive lecture series on inpatient BGL management underpinned by explicit visible thinking. Ten students volunteered for both pre-teaching and post-teaching case-based interviews focussed on clinical decision-making strategies in common inpatient scenarios and student reflections on the lectures. All students received an insulin reference summary and brief surveys before and after the lectures, relating to confidence across several domains of inpatient BGL management. Interviews were analysed using template-based thematic analysis.

### Results/Evaluation

Pre-teaching interviews revealed generalised clinical uncertainty regarding inpatient BGL management. Effective decisions were hindered by clinical caution, as well as lack of applied knowledge, practical understanding of insulins and dosing. Proposed decisions were often based on untethered observations of senior clinician’s actions.

The impact of understanding how to “think” was observable with increased confidence in the post-teaching interviews. Contextual interpretation of BGL data and justification of management goals, insulin choices and dosing were noted. Some participants demonstrated a shift from excess clinical caution to monitoring of clinical decision efficacy. Participants described the “visible thinking” methodology as revealing previously obscure clinical thinking processes. The cohort’s questionnaire responses also demonstrated increased confidence across all domains of BGL management.

### Discussion

Explicit “visible thinking” allows students to adopt a framework which complements their clinical placement learnings. Students show significant improvement in problem representation, confidence and justifying BGL management decisions when expert thinking is explicit in teaching. The underlying pedagogy of “visible thinking” has widespread applicability within clinical teaching.

## Community of Practice and identity development in code stroke simulation training

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### Introduction/Background

Stroke is a neurological emergency requiring co-ordinated, rapid response to deliver time-critical treatment. "Code Stroke" simulation training is associated with improved outcomes across all four Kirkpatrick training evaluation levels. However, few studies have evaluated results using educational theory. We explored the learning occurring in stroke team simulation debriefing using educational theory.

### Methods

St Vincent's Hospital, Melbourne delivers stroke simulation training each junior doctor rotation. Sessions are 90 minutes (pre-brief, scenario, debrief) and held in the hospital simulation centre. Participants are the rostered code team, including nurses, medical students, interns, registrars and consultants from stroke and radiology with a simulated participant for the patient. Scenario difficulty is adapted to the interdisciplinary, multi-level learner profile of each team. Debriefs follow the PEARLS approach.<sup>1</sup> Six sessions were audio-visual recorded during 2022 and transcribed verbatim. Debriefing content was evaluated using reflexive thematic analysis with interpretation through a Situated Learning Theory lens.

### Results/Evaluation

Identified topics ("Communication", "Knowledge", "Processes Efficiency", "Team Factors", "Self-Reflection", "Feedback") demonstrated expected overlap with principles of crisis resource management. However, the central theme did not focus on performance improvement but more broadly on "Development of identity as a stroke team member". Subthemes were "Development of individual identity", "Communication with senior clinicians", and "Behaviour as a Team Member" which included drivers of both positive and negative interdisciplinary interactions. Viewing findings through a Situated Learning Theory lens, the individual's identity growth appeared both influenced and supported by belonging to the stroke team (Community of Practice).

### Discussion

A key discovery was the way participants utilised reflective practice not only to acquire new knowledge or skills but at a deeper level to develop identity as a clinician. Considering the stroke team as a Community of Practice provides insight for debriefing multi-level learner simulations as each participant will be at a different peripherality within their team.

### References

Eppich W, Cheng A. Promoting Excellence and Reflective Learning in Simulation (PEARLS): development and rationale for a blended approach to health care simulation debriefing. *Simul Healthc*. 2015 Apr;10(2):106-15.

## Evaluation of a social and emotional health teaching programme

**Jureidini J<sup>1</sup>**

<sup>1</sup>*University Of Adelaide*

### **Introduction/Background**

Contemporary medical training needs to impart competencies in understanding and responding to psychological and systemic determinants of health. The Paediatric Mental Health Training Unit (PMHTU) in the School of Medicine at the University of Adelaide, through its iLab program, has provided senior medical students with practical, simulation-based teaching of these competencies. Student satisfaction with the teaching is high, but the meaningful outcomes of such holistic training, as well as the individual and institutional determinants of any success in this field are largely unexplored.

### **Methods**

The University of Lugano team will report on a multi-dimensional and mixed-methods evaluation of the PMHTU Social and Emotional Health training. The evaluation will be completed in the first semester of 2024 with repeated measures using a tool uniquely designed for this program. Comparisons are made within and between groups, pre and post participation. Subjects participating in PMHTU and controls who have not yet attended are scored on clinical scenario performance and consolidation across three months. Quantitative data is supplemented by phenomenological analysis of interviews with twenty of the medical students to help to identify overarching patterns of thought, emotions and attitude towards the programme.

### **Results/Evaluation**

Program effectiveness is measured on the dimensions of clinical scenario performance (scored) and consolidation (scored, long-term), based on choice, prioritisation and confidence in and of clinical action. Attitudes and emotions are explored qualitatively, revealing the potential for optimisation and innovation of social and emotional health courses in medical programs.

### **Discussion**

This study employs a sociological standpoint to doctor-patient communication to answer poignant questions regarding the effectiveness of enhancing medical student competencies in challenging clinical patient interactions and the effective delivery of socially and psychologically informed care.

## Remediation and support for medical learners in difficulty: description of a single-site strategy from design through to evaluation

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<sup>1</sup>University Of Melbourne, <sup>2</sup>Northern Health

### Introduction/Background

There is increasing recognition of the need for medical schools to provide individualised support for students experiencing difficulties that impact on their ability to meet the learning outcomes of the course. This presentation outlines the approach undertaken at a single clinical school site to design, implement, deliver, and evaluate a local Academic Support Program (ASP) for a group of medical students over the 2023 academic year.

### Methods

When the need for a local ASP was identified, and following review of relevant existing organisational policies, procedures, and resources, a focused literature review was undertaken by clinical school leads to determine an approach that would be suitable and sustainable at our site. Once the expected staffing was ascertained, program design was undertaken with input from all involved academic staff. This comprised exploring strategies for diagnosing individual student difficulties, and anticipating the potential approaches that could support learning, including bedside teaching, clinical reasoning and case discussion, and regular individual support and oversight from the clinical school. Evaluation of the ASP was based on participants' academic outcomes, student feedback via anonymous questionnaire, and semi-structured interviews with involved academic staff.

### Results/Evaluation

All students involved in the 2023 ASP were successfully able to meet their course requirements and move forward in their course of study. Analysis of student feedback surveys and academic staff interviews is underway at the time of submission.

### Discussion

This presentation will explore the processes and strategies utilised in the design and delivery of our local ASP, including identified areas of success and for improvement, as well as the challenges encountered during the process.

### References

Audétat MC, Laurin S, Dory V, Charlin B, Nendaz MR. Diagnosis and management of clinical reasoning difficulties: Part I. Clinical reasoning supervision and educational diagnosis. *Med Teach*. 2017 Aug;39(8):792-796. doi: 10.1080/0142159X.2017.1331033. Epub 2017 Jun 7. PMID: 28587534.

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## Developing medical students' and early career academic research capacity in a rural clinical school through intensive, in-the-moment support

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<sup>1</sup>Rural Clinical School, School of Medicine, University Of Tasmania

### **Introduction/Background**

The University of Tasmania Rural Clinical School (RCS), situated in North-West Tasmania, offers an undergraduate medicine program to students from years 3 to 5. The RCS provides an opportunity to study medicine, undertake placements, and reside in a rural region. In 2023 the RCS employed a Research Coordinator to commence a program of research support fostering research skills through direct research experience. The program was aimed at fourth-year students, with some interest from final-year students. Students not involved in two-year projects undertook shorter research activities (literature reviews, case reports, systematic reviews, reflections, and reviewing public health information resources). This presentation demonstrates how an intensive, supported, in-the-moment research program increases research capacity in a rural clinical school.

### **Methods**

The program commenced with joint academic/student collaborations with two-year timeframes and introduces them to research tools (Redcap, Covidence, ethics, academic databases, and designing appropriate research methods). Year one incorporates project development, literature review, ethics and data collection. Data analysis, final report writing, and dissemination of research findings occur in year two. This timeframe accommodates project delays.

### **Results/Evaluation**

Learnings from the project are grouped into necessary conditions and resources for successful capacity building. Necessary conditions include support that is intensive and in-the-moment for students and early career academics; students' interest corresponds with engagement; tasks to be time-driven; flexibility and ability to pivot; teaching and learning via participation with coordinator and team members working together; realistic and achievable project timeframes; and continuous process of refinement. Necessary resources include minimum three students per project; appropriate mentoring and resources; dedicated research time; and multiple guidance sessions to develop skills.

### **Discussion**

Without dedicated research time for students', support must be intensive, and in-the-moment to facilitate successful learning and meaningful project outcomes. Keeping students engaged and accountable is key to skills development for rigorous, well designed and meaningful research.

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### What support do students need on rural clinical placements during weather-related disasters? Understanding student experiences through Maslow's hierarchy of needs

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#### Introduction

Climate change is causing increasingly frequent and severe weather-related disasters globally. Health professional students undertaking placements in communities affected by weather-related disasters have similar experiences to others in the impacted community.<sup>1</sup> Yet, little research has explored how the experience may affect students or the future health workforce. We explored students' clinical placement experience during and after flooding disasters and the support needed from universities.

#### Methods

We conducted a deductive qualitative study of medical students on year-long rural clinical placements two-to-six weeks after multiple major flooding events. In April and May 2022, we conducted six focus groups and a survey with demographic and free-text items. We deductively analysed qualitative data using thematic analysis based on Maslow's Hierarchy of Needs and its five fundamental categories of needs: physiological, safety, love and belonging, esteem and self-actualisation.<sup>2</sup>

#### Results/Evaluation

Of 43 students, 36 participated in focus groups and 34 completed the survey (response rates: 84% and 79%, respectively). The floods disrupted students' education and personal lives through lack of access to necessities such as food, water and shelter, and damage to their homes and/or having to evacuate homes. Students' experience increased their appreciation of their own health needs, the importance of self-care and their sense of community belonging. They developed mental health counselling skills through supporting patients and peers, though some identified a need for education in disaster medicine. Additionally, students increased their understanding of health inequity and social vulnerability, leading some to consider the type of doctor they want to be.

#### Discussion

The flooding events disrupted the students' education and greatly affected their personal lives. This highlighted the range of academic and personal support needed from universities when students are affected by such disasters on clinical placements. Nevertheless, the floods acted as a catalyst for students, prompting transformative learning and professional identity.

#### References

1. Bailie J: **Supporting students in the aftermath of a weather-related disaster.** *Focus on Health Professional Education: A Multi-Professional Journal* 2022, **23**(1):109-110.
2. Maslow AH: **A theory of human motivation.** In.: American Psychological Association; 1943: 370-396.

## Peer mentoring by medical students for medical students: a scoping review

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### **Introduction/Background**

Medical students face new and evolving challenges in their training. Peer and near-peer mentors can provide opportunities for a unique support dynamic and growth for both mentors and mentees. Peer mentoring, used here to include both peer and near-peer mentoring is explored through this scoping review, which aims to determine the benefits and challenges of peer mentoring programs contained within the medical school context and markers for their success.

### **Methods**

Ovid MEDLINE, ERIC, EMBASE, Web of Science, WorldWideScience, British Library were searched on the 21<sup>st</sup> of January 2024 with keywords related to “medical student” and “mentor”. Studies were included where both mentees and mentors were medical students.

### **Results/Evaluation**

9 studies with a total of 4,506 participants met the inclusion criteria. Both mentors and mentees identified psychosocial, professional, and academic benefits to participation across all studies. Academic benefits included development of clinical confidence, skills in patient care, procedural skills, medical knowledge, and interviewing and examination skills. Non-academic gains included confidence, social support, peer relationships, and communication skills. Mentee-mentor matching, orientation, clear program goals and mentor training were important for the success of programs.

### **Discussion**

This is the first scoping review which has comprehensively covered mentoring programs set in medical schools where mentors and mentees have been medical students. This review identified that near-peer mentoring provides a unique experience and benefit to both the mentor and the mentee. Having mentors with flexibility, similar life experiences and contemporary academic experiences led to academic and non-academic benefits for both parties. Mentor training was felt to be positive however this needed to be balanced with workload. Markers for mentoring program success should be considered in the development of a peer mentoring programs with resources invested accordingly. Examples may include the development of onboarding modules and a framework for mentor training.

## Drivers of medical student burnout and engagement post-pandemic: a scoping review

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### Background:

The prevalence of burnout among medical students has previously been estimated at between 45% and 71%, with the COVID-19 pandemic known to have exacerbated the issue.

In 2016, a clinician wellbeing model outlined seven drivers of burnout and its antithesis, engagement.<sup>1</sup> This scoping review will utilise the drivers outlined in the model as a framework to categorise post-pandemic literature in students. Our review sought to: describe the extent of the literature (study design and focus), outline key concepts and vocabulary used in relation to the antithesis of burnout (i.e. positive constructs), clarify to what extent the pre-pandemic known 'drivers' of burnout or engagement are relevant post-pandemic, highlight additional post-pandemic drivers, and identify gaps in the literature.

### Methods

The review used the JBI scoping review methodology and the PRISMA-ScR guidelines.<sup>2</sup> A search was conducted in December 2023 in Embase, MEDLINE, PsycINFO and the Cochrane Library. Inclusion criteria stipulated studies were in English, conducted after January 2020, and focussed on burnout or engagement in medical students. Data was charted to document study design, participants and topic, grouped according to the previously-identified drivers of burnout or engagement, then summarised and analysed narratively.

### Results:

Seventy-nine of 5401 studies were included, with the majority from Asia (33), North America (19) or Europe (18). Forty-six studies had >55% female participants and most were cross-sectional (63/79). All pre-pandemic drivers were present in the post-pandemic literature on medical student burnout and engagement. Only four studies featured engagement as a main concept.

### Discussion:

The majority of research on medical student burnout and engagement since the onset of the COVID-19 pandemic reports burnout prevalence, with few intervention studies, and minimal focus on promoting engagement. This highlights the need for research into what can be done to promote engagement and minimise burnout, including exploring positive as well as negative drivers.

### References

- <sup>1</sup> Shanafelt, T. D., & Noseworthy, J. H. (2017, January). Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. In *Mayo Clinic Proceedings* (Vol. 92, No. 1, pp. 129-146). Elsevier.
  - <sup>2</sup> Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of internal medicine*, 169(7), 467-473.
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## Examining peer support dynamics: A qualitative study on psychosocial wellbeing among postgraduate health students

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### Introduction/Background

Peer support is a widely acknowledged strategy in higher education, fostering socially safe groups for knowledge expansion and skill development (1). However, evidence in the context of public health and health science students is limited. This study addresses this gap by exploring the experiences of postgraduate students participating in peer support program.

### Methods

The study implemented a peer support group program for students enrolled in the Social Determinants of Health subject at Western Sydney University. Students were encouraged to engage in groups of 4-5, and the experiences were explored through focus groups conducted in English, Hindi, and Nepali. Thematic analysis was employed for data interpretation. Four focus groups were conducted via Zoom, audio-recorded, translated, transcribed verbatim, and analysed using thematic analysis. The chosen languages aimed at capturing diverse perspectives within the student population.

### Results/Evaluation

Three major themes emerged from the analysis: 1. Emotional Wellbeing and Social Support, 2. Social Interactions and Forming Friendships, and 3. Facilitators and Barriers to Engagement. The findings highlight the positive impact of peer support on students' emotional well-being, social interactions, and identification of facilitators and barriers to engagement.

### Discussion

This study contributes to the evidence base for peer learning in Australian tertiary education. It emphasizes the importance of peer support in aiding students' transition into university life, providing academic assistance, and psychosocial support and addressing specific challenges, particularly amidst the COVID-19 pandemic.

### References

1. Kodabux, A., Hoolash, B. K. A. Peer learning strategies: Acknowledging lecturers' concerns of the Student Learning Assistant scheme on a new higher education campus. *Journal of Peer Learning*. 2015; 8(1), 59-84.

## Placement poverty: Preliminary interview findings of the financial impact of professional placement experiences on university students in Australia and New Zealand

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<sup>1</sup>University Of Wollongong

### Introduction/Background

“Placement poverty” refers to financial impacts of professional student placement experiences on student financial wellbeing. This study explored the financial and other impacts on wellbeing in university students completing mandatory professional placements.

### Methods

Adult (>18 years) students completing mandatory professional placement in any Australian or New Zealand university were recruited to semi-structured interviews using Zoom. Students had consented to a larger parallel mixed methods survey on the type and nature of costs incurred for their professional placement experience. Inductive reflexive thematic analyses determined key themes.

### Results/Evaluation

Expressions of interest were received from 177 students. To date, n=32 students have been interviewed (72% female, 34% dietetics, 28% psychology). Placement adversity is linked to four other preliminary themes: 1. *Unanticipated social consequences* -reliance on family/significant other, social/psychological impacts, inequity between students; 2. *Personal financial disruption*- inability to undertake paid employment at required levels during placement, increasing reliance on depleted savings or forced borrowing funds to survive; 3 *Unpredictable consequences*- significant unanticipated expenses due to changing placement allocations (e.g. double rental, travel costs); 4. *Disconnection*- burnout as a consequence of completing placements and paid employment. Financial hardships are severe with some students' unable to participate in social activities or attend to wellbeing requirements (delayed medical appointments, skipped meals). Some participants expressed a desire to leave their profession prior to graduation due to feeling disillusioned, disempowered, undervalued and burnt out.

### Discussion

Placement poverty impacts students in unanticipated and profound ways. Strategies to address this include education prior to placement about costs and creation of short-term interest free loans. Non-traditional placement arrangements (e.g. part time) in some professions should be considered but require discussion with the accrediting body. Minimum payment for placement across all professions needs to be revisited. Longer term advocacy is needed to highlight a potential loss of critically needed professionals at graduation.

## Bridging the gap: How do we improve postgraduate student mental health and wellbeing?

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### **Introduction/Background**

There has been a steady increase in the rate of self-reported mental health and wellbeing issues by university students; more than 1 in 5 experience these issues whilst studying in tertiary settings. Student wellbeing is linked with learning outcomes and satisfaction. Fostering student wellbeing is therefore critical to ensuring students can engage and excel in their learning at university.

While universities offer an array of in-curriculum and co-curricular initiatives to support student wellbeing, the increasing rates of self-reported mental health and wellbeing issues reported by students suggest that these initiatives are insufficient. Engaging students in co-designing in-curriculum and co-curricular strategies to enhance wellbeing is likely a critical aspect to resourcing relevant initiatives and successfully implementing them.

The aim of the current project was to identify facilitators and barriers to postgraduate student wellbeing.

### **Methods**

Thirty-three postgraduate health degree students from Speech Pathology, Audiology, Nursing, Social Work, Physiotherapy, Dentistry, Medicine, Psychology and Population and Global Health participated in one-hour focus groups consisting of 4-8 participants. Students were provided with three prompts during the focus group. 1) What current curricula and co-curricular activities support your wellbeing? 2) What curricula and co-curricular activities are currently provided by the university that are unhelpful to your wellbeing? 3) What curricula and co-curricular activities does your course not currently offer that you believe would be most beneficial to support your wellbeing? Recordings will be transcribed and thematic analysis conducted on participant responses.

### **Results/Evaluation**

Findings will identify facilitators and barriers to postgraduate student wellbeing that the university should continue implementing, stop offering or design and introduce.

### **Discussion**

Findings will inform the development of in-curriculum and co-curricular wellbeing approaches that can be integrated into postgraduate health focused courses. Implementation of these approaches will aim to enhance student's wellbeing, and subsequently their satisfaction with their learning experiences at university.

## Nurturing neuro-spicy learning: an exploration of engaging and supporting neurodiversity in nursing education

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### Introduction/Background

Describing variations in experiences and the processing of information, neurodiversity encompasses dyspraxia, dyslexia, attention deficit hyperactivity disorder, dyscalculia and autism spectrum amongst others (Clouder et al., 2020). Neurodiversity is experienced by approximately 12% of Australians and with increasing enrolments of neurodiverse learners (NDL), education providers are being challenged to provide inclusive, accessible and equitable educational experiences for all learners. Unfortunately, research exploring the experiences of NDL and educators is extremely limited and when narrowed to the context of nursing education is discouraging sparse. Subsequently, this presentation aims to explore the experiences of educators and to identify practical strategies used in learning environments to maximise NDL success.

### Methods

While andragogical paradigms have identified concepts to support NDL in tertiary education, these fail to recognise the nuances of nursing education, including vastly different contextual environments within the single program of learning (classroom, lab/simulation, clinical setting) (Harris, 2018). This presentation is designed to be a sharing of ideas, concepts and techniques through the community of educators, their individual, program and organisational/institutional systems, frameworks and resources which have been used to support NDL learning, the success (or otherwise) of systems, current challenges and future projects related to NDL education.

### Results/Evaluation

Evaluation of this presentation would consider the exploration, collaboration, and sharing of pedagogical strategies and techniques utilised in the support of NDL. Practical strategies for implementation into learning environments with minimal financial, cultural and organisational difficulty will be prioritised. During the presentation, there will be an opportunity to create a community of practice for ongoing communication, networking and interaction for interested educators.

### Discussion

By creating an opportunity for educators to explore and share frameworks, strategies and techniques valuable in the support of NDL, nursing educators can ensure their practice maximises success and is authentic to diversity, equity and inclusion.

### References

- Clouder, L., Karakus, M., Cinotti, A., Ferreyra, M. V., Fierros, G. A., & Rojo, P. (2020). Neurodiversity in higher education: a narrative synthesis. *Higher Education*, 80(4), 757-778.
- Harris, C. (2018). Reasonable adjustments for everyone: Exploring a paradigm change for nurse educators. *Nurse Education in Practice*, 33, 178-180.

## Embedding E-professionalism Education within Undergraduate University Programs

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### Introduction

Our recent scoping review of social media use and awareness among undergraduate nursing and midwifery student's highlights the importance of integrating e-professionalism education within undergraduate curricula. The review identified that despite national and international social media guidelines, more comprehensive guidance is needed to help students navigate their professional responsibilities when engaging with social media platforms, for either personal or professional use. We describe an evidence-based approach to improve guidance for entry-level students in our Bachelor of Nursing and Bachelor of Midwifery programs.

### Methods

To integrate e-professionalism in undergraduate Nursing and Midwifery programs, we undertook a comprehensive review to determine how existing material could be enriched and informed by scoping review findings. We used the National Nursing and Midwifery Digital Health Capability Framework (2020) to ensure content aligned with current expectations of the nursing and midwifery workforce requirements, particularly Domain 1 – Digital Professionalism. We created tutorial activities and online content with support from our Teaching Innovation Unit for the following topics: Privacy Settings, Unprofessional Conduct, and Professional Digital Footprint.

### Evaluation

Developed teaching and learning content will be implemented in March 2024. Implementation and delivery of the new course content will be evaluated in terms of student engagement and interactions, student evaluation of teaching records and discussion with relevant course coordinators. Effectiveness of teaching material will be evaluated through formative score assessments embedded within the activities.

### Discussion

Teaching content for undergraduate nursing or midwifery students' needs to be engaging and align with current guidelines including the National Digital Health Capability Framework (2020). Profession-specific codes, standards and the Social Media guide for health practitioners in Australia (AHPRA) can also guide student conduct during clinical practice. It is important to consider how much content and guidance is required to promote e-professionalism and whether it makes an impact on student conduct.

### References

Australian Digital Health Agency, 2020. National Nursing and Midwifery Digital Health Capability Framework. Australian Government: Sydney, NSW.

Australian Health Practitioner Regulation Agency (AHPRA), 2019. Social media: How to meet your obligations under the National Law. <https://www.ahpra.gov.au/Resources/Social-media-guidance.aspx>

Growing early-career health professional educators: is training our students to teach “planting the seeds” to sustain and enrich our healthcare faculties and foster relevant and authentic innovation in our programs?

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<sup>1</sup>UNSW

### **Introduction/Background**

Health professionals need to share their expertise - teaching others - within and across disciplines, with teaching skills increasingly listed globally as graduate attributes<sup>1</sup>.

Junior healthcare professionals contribute significantly to the teaching ‘workforce’ with well-documented benefits of this near-peer teaching on student learning<sup>2</sup>.

Student-as-Teacher (SaT) programs are emerging internationally – however, scaffolding professional recognition opportunities into SaT curricula is novel.

### **Methods**

Since 2019, an optional Learning to Teach (LTT) teacher training program has been offered to final-year UNSW Medicine students. Graduating students may submit ‘educator’ portfolios, strategically framed around applications for adjunct/conjoint appointments with the Faculty of Medicine and Health, with those students demonstrating appropriate teaching experiences supported in submissions for conferral. The professional development of a smaller group is further enhanced by Faculty-funded mentoring through direct applications for Associate Fellowship (AFHEA) with Advance HE.

### **Results/Evaluation**

From the 61 portfolios submitted in 2021/2022, 15 final-year students, drawing on their extensive teaching experiences, achieved conjoint/adjunct status after transitioning into their first junior doctor year, with 7 subsequently awarded international AFHEA professional recognition. As affiliates, these graduates are offered diverse forms of education engagements to bolster their professional development, including partnerships with senior academics facilitating curriculum renewal. Six have since received institutional recognition (education awards) for developing innovative teaching resources.

These LTT graduates have remained connected as Faculty - contributing to education scholarship, curriculum development/creation of educational resources, marking of assessments, and direct supervision of students. Their unique position - as recent graduates, junior clinicians, and early-career educators – has provided an authentic and relevant perspective coupled with a drive for innovation within the Medicine program. This has benefitted students whilst facilitating career advancement for these early-career educators.

### **Discussion**

The success of the LTT program demonstrates the potential of embedding SaT curricula to creating a sustainable and enriching pipeline for faculty recruitment and development.

### **References**

1. Burgess A, McGregor D. Peer teacher training for health professional students: a systematic review of formal programs. *BMC Med Educ*. 2018 Nov 15;18(1):263. doi: 10.1186/s12909-018-1356-2. PMID: 30442139; PMCID: PMC6238310.

2. Snell L. The Resident-as-Teacher: It's More Than Just About Student Learning. J Grad Med Educ. 2011 Sep;3(3):440-1. doi: 10.4300/JGME-D-11-00148.1. PMID: 22942984; PMCID: PMC3179240

### **Issues or questions for exploration**

Demonstrating Faculty Development in action, our lead presenter - a LTT/UNSW Medicine graduate and UNSW affiliate – will be supported by senior academic colleagues to facilitate this PeArLS.

Should teaching skills training be a core component of all health professional programs? Can embedding SaT programs implement a pipeline to support junior clinicians to become future Faculty (trained/skilled educators)?

We will consider the benefits/potential challenges of recent graduates remaining connected as Faculty and strategies to support their ongoing professional development (e.g., providing opportunities for diverse educational engagements as early-career health professional educators) and the potential outcomes on our health professional programs.

## Cultivating Excellence: Nurturing the Modern Health Professions Educator

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### Introduction/Background

In recent years, it has been acknowledged that the role of health professions educators has advanced from mere lecturers into a dynamic professional educator equipped with diverse skills. To excel in this role, individuals must cultivate expertise in educational leadership, curriculum design, mentorship and coaching, and educational scholarship. Despite the proactive response of some institutions to this evolution by offering robust educator support, many still falter in acknowledging, appreciating, advancing, and fostering a genuine sense of belonging among educators. This pivotal support, or its absence, profoundly influences the satisfaction and retention of this vital cadre of faculty members.

### Methods

This discussion session will explore and prioritize the institutional structural changes and support necessary for the modern educator to thrive. The subjects to be examined in this session are follow up questions that emerged from two studies that describe professional identity formation in basic science and clinical educators (see references below).

### Results/Evaluation

The results provide strong evidence that the satisfaction of basic science and clinical health professions educators is shaped by key socialization factors that can be categorized as personal, social, and structural in nature.

### Discussion

This session will explore how personal, social, and structural factors must be aligned for faculty to thrive as health professions educators.

### References

1. Wahid *et al.* (2021) *Medical Teacher* **43**, 868-873. "Professional Identity Formation of Medical Teachers in a Non-Western Setting."
2. Brooks *et al.* (2023) *Acad. Med.* **98(11S)**, S14-S24. "Professional Identity Formation of Basic Science Medical Educators: A Qualitative Study of Identity Supports and Threats."

### Issues or questions for exploration

This session will explore opportunities to best support basic science and clinical educators by asking the following questions:

1. What key supports are necessary to increase recognition, value, promotion, and belonging for the modern health professions educator?
2. What specific steps can institutions take to improve job satisfaction and retention of health professions educators? How should we prioritize these steps?
3. How can basic science educators and clinician educators work together to promote support of the modern health professions educator?

### Palliative care curriculum content recommendations for Australian pre-registration nursing curricula: Findings from round one of a modified Delphi study

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<sup>1</sup>University Of Canberra

#### Introduction/Background

A pre-registration nursing degree provides the foundation for future nursing practice; however, evidence underscores that many student nurses feel inadequately prepared to participate in palliative care delivery (Croxon et al., 2018). A recent systematic review of generalist palliative care content in undergraduate nursing curricula revealed that empirical evidence to support curricula development is minor, inconsistent, with limited global representation and minimal data from Australia (Nilsson et al., 2022). This study aimed to determine generalist palliative care curriculum content recommendations for Australian pre-registration nursing curricula.

#### Methods

A mixed methods study will establish consensus over three interconnected rounds using a modified Delphi method. Round one consisted of an international online focus group discussion among eight content experts: educators, academics, clinicians, and a consumer representative with expertise in palliative care. The discussion was guided by the findings of a systematic review-informed list of generalist palliative care curriculum content (Nilsson et al., 2022). Data analysis was performed using qualitative content analysis. The 'Empirical Framework for Care' and 'Roper-Logan-Tierney model for nursing' were used as a theoretical guide to categorize curriculum content.

#### Results/Evaluation

The findings illustrated what curriculum content palliative care experts perceived should be included in pre-registration nursing curricula. There was general agreement on all topics listed in the systematic review informed list. Topic areas relating to palliative care principles and philosophy, pain and symptom management, grief loss and bereavement, clinician values, attitudes and beliefs, and ethical aspects of care were expanded upon. Five overarching categories emerged: 1) Introduction to Palliative Care, 2) Health, 3) Nursing Care, 4) Nursing Knowledge, and 5) Client. Findings from round one will go on to inform subsequent rounds two and three of the modified Delphi.

#### Discussion

Given future burgeoning palliative care needs pre-registration curriculum content needs to provide evidence-informed foundational knowledge that accurately represents holistic palliative care. Supported by existing theoretical frameworks, the focus group findings represent an evidence-informed foundation for future recommendations for Australian palliative care curriculum content.

#### References

- Croxon, L., Deravin, L., & Anderson, J. (2018). Dealing with end of life-New graduated nurse experiences. *Journal of clinical nursing*, 27(1-2), 337-344. <https://doi.org/10.1111/jocn.13907>
- Nilsson, S., Gibson, J., Paterson, C., & Crookes, P. (2022). Evidence informed generalist palliative care content for undergraduate nursing curriculum: An integrative review. *Nurse Educ Pract*, 64, 103447. <https://doi.org/10.1016/j.nepr.2022.103447>

## Examining the nexus between medical education and complexity theory: A systematic review to inform practice and research

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<sup>1</sup>*University Of Tasmania*

### **Introduction/Background**

Medical education is a multifarious endeavour integrating a range of pedagogies and philosophies. Complexity theory signals a move away from a reductionist paradigm to one which appreciates that interactions in multi-component systems, such as healthcare systems, can result in adaptive and emergent outcomes (1). This study examines the nexus between medical education and complexity theory, aiming to discover ways that complexity theory can support innovation in medical education and medical education research.

### **Methods**

A structured literature review examined the nexus between medical education and complexity theory. Five databases were searched using relevant terms. Papers were included if they engaged fully with complexity theory and were significantly focused on medical education. All types of papers (e.g. conceptual, evaluation, case studies, empirical research) were eligible. A narrative and thematic synthesis was undertaken.

### **Results/Evaluation**

Eighty-three papers were included; the majority were conceptual. Bibliographic and temporal observations were noted regarding the entry of complexity into medical education. Complexity theory was drawn on as a theoretical framework for empirical studies covering a variety of elements within medical education including: knowledge and learning theories; curricular, program and faculty development; program evaluation and medical education research; assessment and admissions; professionalism and leadership; and learning for systems, about systems and in systems.

### **Discussion**

There is a call for greater use of theory by medical educators (2). The use of complexity theory in medical education is established, although not widespread. Individualistic cultures of medicine and comfort with reductionist epistemologies challenges its introduction. However, complexity theory was found to be a useful theory across a range of areas and is increasingly used by medical educators and medical education researchers. This review has further conceptualized how complexity theory is being used to support innovation in medical education and assists in understanding how the theory can be useful to medical educationalists.

### **References**

1. Waldrop MM. Complexity: The emerging science at the edge of order and chaos. New York: Simon & Schuster Paperbacks; 1993.
2. Prideaux D, Spencer J. On theory in medical education. *Med Educ.* 2000; 34(11):888-889.

## Teaching clinical reasoning in preclinical health education: the role of context

**Merkus T**<sup>1</sup>

<sup>1</sup>Charles Sturt University, School Of Rural Medicine

### **Introduction / Background**

Clinical reasoning (CR) is a key skill necessary for effective clinical practice across a variety of health professions. CR has also been shown to be context specific. Despite this, research around best practice for teaching CR in preclinical years within specific contexts is lacking. A scoping review was conducted to explore the impact of the rural context on CR education.

### **Methods**

MEDLINE, Emcare and CINAHL databases were searched and 252 studies were identified, with 17 included in the data extraction. Excel was used for data extraction and all studies were imported into NVivo12Plus for thematic analysis.

### **Results / Evaluation**

Simulation was the most common approach to teaching CR in rural areas, followed by online methods and case studies. Online methods provide a unique opportunity for rural CR education to overcome geographic and resource barriers. Only 5 studies considered the rural context explicitly in their evaluation of CR. Six themes were identified in the qualitative analysis ranging from environment and context through to rationale and specific teaching strategies. Characteristics of the literature, our thematic analysis, and implications for future research will be the focus of this presentation.

### **Discussion**

Although a number of studies have described CR education, only a minority have explicitly considered the impact of the rural context. Context specificity is important to rural CR due to resource limitations and the specific skills and unique scope of practice required for rural clinicians. This means that some CR strategies such as online simulation and case studies may be more suited to the rural context. Effective CR education for the rural context is critical for patient safety and for developing clinicians suited to practising in underserved rural areas. Further research should aim to identify key factors specific to CR in the rural context to improve learning in this environment.

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## Thinking about the 'E' in the Ethics, Law and Professionalism curriculum for Medical Programs

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### **Introduction**

The landscape of the medical profession is constantly evolving, shaped by a myriad of social, cultural, economic, and political influences. Healthcare professionals often find themselves confronted with complex and morally challenging decisions and experiences. To navigate this space, healthcare professionals require more than scientific knowledge and technical skills. They also require training in ethics and professionalism that affords them the opportunity to develop practical skills in ethical reasoning, reflection, and deliberation. To achieve these aims and meet the new standards of the Australian Medical Council, an explicit ethics curriculum is required within medical programs.

### **Methods**

Recent review of the University of Sydney medical program identified some gaps in the ethics topics, disconnected content and lack of spiralling across the years. A working party, consisting of academic bioethicists and medical educators was formed to develop a proposed new ethics curriculum using relevant published literature and own expert experience. This proposal was reviewed by local experts, clinical ethicists in both urban and rural settings. A final ethics curriculum was created that spirals through out the program encompassing multiple vertical and horizontal themes.

### **Results**

Six core learning outcomes were developed including the foundational principles of medical ethics, ethical considerations in clinical decision-making processes, common ethical dilemmas in clinical practice, communication of ethical issues, cultural and diversity related factors and personal biases and conflicts of interest within ethical decision-making. These were further developed into key topics and associated learning outcomes.

### **Discussion**

Ethics education should be designed to foster a comprehensive understanding of ethical principles, as well as the development of the necessary skills for interns to apply them independently in real-world settings. An up-to-date and culturally relevant curriculum is the first building block of ensuring that ethics teaching is integrated into an already packed curriculum. Further work is now required to implement this curriculum.

## Are we nurturing students and supervisors to prepare students for clinical practice?

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### **Introduction/Background**

The Melbourne Dental School (MDS) is currently engaged in a comprehensive review and redesign of its Doctor of Dental Surgery (DDS) and Bachelor of Oral Health (BOH) curricula. Such an undertaking requires a systematic approach and collaboration with stakeholders. This study investigates the perceptions of clinical supervisors (CS) and recent graduates (RG) concerning preparedness for clinical practice, as influenced by the existing MDS curriculum.

### **Methods**

Employing a qualitative methodology, semi-structured interviews were conducted with a purposeful sample of 12 CS and 7 RG. Transcripts were thematically analysed using an inductive approach.

### **Results/Evaluation**

Thematic analysis generated 5 overarching themes from the CS interviews and 7 from the RG interviews. Further analysis identified similarities and differences between the themes of the two groups. The similarities and differences were considered through a student experience framework and the pillars of the Faculty Strategic Plan: Collaborate, Innovate, Nurture and Impact. Opportunities for curricular development aimed at nurturing both students and supervisors, ensuring comprehensive preparation for clinical practice were identified.

### **Discussion**

The collection of insights from both CS and RG regarding preparedness for practice, as well as their perceptions of the curriculum's content, teaching and learning strategies, and student assessment, assumes a critical role in the continuous MDS curriculum review and redesign efforts.

## Clinical Evidence Synthesis: Constructive Alignment and Authentic Curriculum

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Authentic constructively aligned curricula clearly expresses what students intend to learn and after learning how the students will express their learning. When curricula are constructively aligned, students should demonstrate their knowledge through the execution of activities that employ the acquired concepts. To be effective, medical research conducted in busy clinical environments demands dedication, adaptability, substantial mentorship, and time.

We formulated a research mentoring model designed to facilitate and maintain authenticity within constructively aligned curricula. This model promotes optimal peer interaction among our medical students, thereby developing their research skills effectively. It provides clinical research mentors/supervisors and academic coordinators a platform to teach on necessary research skills needed for research publications. To meet the challenge of acquiring competency and experience in evidence synthesis and guideline development, clinical medicine students were tasked with developing a systematic review.

Students are paired to complete an independent literature search based on a chosen research area. Supervisors/mentors confirm completeness, also feedback by the paired students and peers during in-class presentations. The final protocol is submitted to the PROSPERO systematic review registry.

Each student independently completes title-abstract and full-text screening. Comparisons are drawn, and consensus is achieved regarding methodological rigor for future publications. Upon agreement of the final number of papers to be included, each student takes an equal portion for analysis and writing an independent research project. Following submission and meeting examination criteria, a unified report is prepared for publication.

To support meeting the timeline, students submit bi-weekly diary's detailing progress and challenges, engage in PIAZZA discussions, utilize PADLET, Perusal, and adhere to draft submission milestones.

Outcomes: 6500-word systematic review and numerous conference presentations stemming from the project. This innovative and creative model blends traditional and non-traditional approaches, ensuring authenticity and constructive alignment among clinical research students. Over 60% of students successfully publish their research projects.

# Accounting for final year student nurses' perceptions of the impact of climate change on public Health in Fiji

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## **Introduction/Background**

This study aims to assess the perceptions of Fiji National University's final-year student nurses on climate change and public health. This study is expected to benefit in enhancing the Bachelor of nursing program related to climate change impact on public health in Fiji.

## **Methods**

We administered a survey containing Likert scale and open-ended questions to Year 3 nursing students with 77 respondents. The questionnaire included Sustainability Attitudes in Nursing Survey (SANS) (Richardson et al. 2015; 2016). Thematic analysis was conducted for the qualitative responses with intercoder reliability.

## **Results/Evaluation**

The quantitative Likert scale results show that (1) the final-year nursing students have very positive awareness towards climate change; (2) the majority of the participants showed positive attitudes toward SANS sustainability issues, (3) participants indicate a high agreement that climate change is a risk to public health and (4) students respond favourably on the importance of climate change curricular integration. In qualitative results, participants listed climate induced conditions related to vector-borne, waterborne, foodborne, respiratory and even emerging zoonotic diseases. The top three topics of interest to prepare participants as graduating nurses were (a) sustainability practices, (b) health impacts of climate change and, (c) disaster management in nursing.

## **Discussion**

Student nurses appear to have a broad understanding of climate-related health conditions. In the Pacific context, common conditions flagged were dengue fever, malaria, typhoid fever, leptospirosis and diarrhoea. Moreover, students expressed interest for (i) management of climate change induced conditions, (ii) related nursing skills, (iii) community education and engagement, (iv) science of climate change, (v) preventative measures and (vi) for the vulnerable population. The findings of this study will assist in the review of the current undergraduate nursing curriculum to include a stronger emphasis on the effects of climate change on public health in Fiji, an island nation state greatly affected by climate change.

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## What is taught to physiotherapy students about assessment of people with neurological conditions? Educator Interviews and Curricula audit of Australian programs.

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### **Background:**

Physical therapists assess and treat many people with neurological conditions in various settings. Knowledge and skills in neurological physical therapy taught at universities must be effective in preparing students for clinical placement and once qualified. There is little published evidence on how professional physical therapist education program curricula and content with respect to the assessment of people with neurological conditions are taught. This study aims to explore what is taught to physical therapist students regarding the assessment of people with neurological conditions and how it is achieved.

### **Methods:**

Semi-structured interviews were conducted with educators informed by web-based cross-sectional desktop audits of physical therapy education programs in Australia that taught the assessment of neurological conditions to physical therapist students' pre-registration. The inclusion criteria were educators who taught the assessment of individuals with neurological conditions within Universities or Institutions of higher education located in Australia offering a professional physical therapist education program. The exclusion criteria were institutions offering post-professional diplomas, certificates, or higher degrees in physical therapist, post graduate courses, content related to neurological assessment of people with musculoskeletal disorders, and not professional training.

### **Results:**

Thirteen educators from twelve universities in Australia participated in this study. The degree most offered was a bachelor's degree in physical therapist with honours. All curriculum content related to neurological physical therapist was taught using foundational modules. Teaching methods included lectures, workshops, tutorials, question-and-answer sessions, case-based learning, and simulations. Methods of examination included practical and written examinations, vivas, and objective structured clinical examinations. The five themes identified from the educator interviews were expectations, scaffolding, context, complexity, and clinical reasoning.

### **Conclusion:**

Various methods are used to teach physical therapist students about the assessment of people with neurological conditions at universities. Clinical reasoning was discussed along with scaffolding. Scaffolding and context were emphasized as important by educators when teaching assessment, but there was variability across programs within Australia.

**Trial registration:** not registered.

### The bidirectional effects of peer feedback during medical student peer mini-CEXs.

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#### **Introduction/Background**

There are limited studies investigating the bidirectional effects of peer feedback in the context of workplace-based assessments (WBAs). The peer assessed mini-clinical evaluation exercise (peer mini-CEX) is a WBA which involves peers assessing one another in a clinical setting. This research aims to investigate the bidirectional effects of peer feedback to medical students undertaking peer mini-CEXs.

#### **Methods**

This study involved online semi-structured interviews of third and fourth year medical students who had participated in peer mini-CEXs. The theoretical framework involved a phenomenological approach based on social constructivist theory. Interviews were transcribed and analysed via deductive thematic analysis, which led to the development of themes.

#### **Results/Evaluation**

14 students, including eight third year and six fourth year students, participated in the study. Students appeared to engage in two general approaches to the peer mini-CEX: a mastery approach or a compliance approach. When taking a mastery approach, bidirectional benefits were clustered around mastery of feedback skills, more intentional observation and reflection, and development of skills in professional conversations. If they took a compliance approach, then the benefits were limited or undesirable. A mediating theme, the social milieu, appeared to influence all interactions and whether a mastery or compliance approach was undertaken.

#### **Discussion**

This study is significant as it is the first to explore the bidirectional effects of peer feedback in a WBA in detail. We found that the peer mini-CEX is a valuable WBA with beneficial effects for both peer assessors and students receiving feedback. However many students perceived the peer mini-CEX as a tick box exercise, resulting in minimal or undesirable effects. Our findings indicate the importance of the social context and peer relationships in mediating the impact of the peer mini-CEX. With appropriate feedback training and priming, the peer mini-CEX represents a valuable exercise for medical students.

#### **References**

N/A

## Artefact Creation Project: An Authentic Assessment Method to Evaluate Anatomy and Physiology in Health Sciences

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Authentic assessments promote active learning and enrich students with a set of skills that might have a significant impact on their employability (Akbari et al., 2022). HLTH1004 Human Bioscience (Human Anatomy and Physiology) is a core topic for first-year Health Sciences students. In contrast to traditional assessment methods such as exams and quizzes, this course adopts innovative approaches, specifically Arts-Based methods (Bell & Evans, 2014). Within HLTH1004, students collaborate in specialised groups (e.g. OT, PT, nutrition, speech pathology, optometry) to produce a 3D model, serving as an artefact of a chosen health condition (e.g. Vocal polyps, Villous atrophy). Subsequently, they create a video, submit an individual reflective piece, and participate in an online self and peer contribution assessment utilising the "Feedback Fruit" platform. This artefact project greatly aids in preventing academic misconduct (Sotiriadou et al., 2020) and increases critical development for work-ready graduates (Caballero & Walker, 2010).

## Cultivating Innovation by developing nursing students' evaluative judgement in clinical practice education

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### Introduction/Background

Developing health professional students' ability to recognise if they are performing to the expected clinical practice standard requires a particular set of skills. This skill set includes evaluative judgement (Boud et al 2018), which is the ability to judge the quality of your and others' work. A potential innovation in clinical education is to incorporate developing students' evaluative judgement as an overt aim of feedback practice. Using an evaluative judgement lens, this study aimed to explore key stakeholders' perspectives on feedback practice to embed the concepts of evaluative judgement into feedback in nursing clinical practice education.

### Methods

This study used a participatory action research design using the Co-creating Knowledge Translation framework (Co-KT) (Kitson et al 2013). Three workshops with an independent facilitator were conducted with educators (n=11) and students (n=8). A six-phase thematic analysis of the workshop data was used to explore patterns, meaning and relationships. The data was reviewed to identify the emergent themes and the relationship to the key concepts of developing students' evaluative judgement.

### Results/Evaluation

An iterative reflexive approach identified five themes: feedback is a shared responsibility, a standardised process, developing relationships, reflection and reflexive practice and feedback conversations. The themes were mapped to the concepts of evaluative judgement to identify where the key features of evaluative judgement, discerning quality, reflection, self-evaluation, judging work, calibration and feedback as dialogue aligned with the concepts of developing evaluative judgement.

### Discussion

This study highlighted that key stakeholder's perceptions of good feedback practice was closely aligned to the concept of evaluative judgement. Exploring a new approach to feedback that embeds the concepts of evaluative judgement is innovative and has potential to improve the quality of nursing education and develop students' lifelong learning capabilities.

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## WBA Assessor Responsibility: Understanding the transfer of responsibility from teaching institutions to clinicians in the workplace.

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### Introduction/Background

Work-place based assessments (WBAs) rely on the transfer of responsibility from external teaching institutions to clinicians in the workplace. Yet holding individuals externally responsible without genuine internal acceptance can reduce motivation and effort, and threaten the integrity of assessments. To understand how responsibility is transferred and accepted or rejected, this study explored clinicians' perspectives on WBA assessor responsibility and its impact on WBA performance.

### Methods

Semi-structured, one-on-one online interviews (20-50 minutes) explored WBA assessors' experiences within the University of Sydney Medical Program. Thematic theoretical analysis was based on Lauermaun & Karabennick's (2011) conceptual framework on different perspectives of teacher responsibility; who is responsible, for what and to whom, who is the judge, using what criteria and in what realm. Adapting the framework to a clinical context provided insight about clinicians' responsibility when acting as WBA assessors.

### Results/Evaluation

Interviews were conducted with 12 WBA assessors across medicine and surgery in 5 hospitals. Perspectives varied, particularly between non-consultants and consultants. For non-consultants, collective clinical team responsibility decreased clarity about who was responsible for WBAs, making it a discretionary choice, not a formal obligation. Participants differed regarding what they felt responsible for; rejecting negative WBA outcomes led to failure-to-fail. Participants judged themselves to be responsible, rather than externally accountable, based on personal values, experiences, student behaviour and organisational support. This criteria influenced perceived task value and whether responsibility as a WBA assessor appeared genuine. In the realm where responsibility to the patient and student seemed incompatible, responsibility as a WBA assessor was dismissed. Consequently, WBAs varied in assessment format and passing requirements.

### Discussion

This study demonstrates that: clinicians' perceptions vary significantly regarding WBA assessor responsibility, influential factors can be addressed with system change and, until this is addressed, the incomplete transfer of responsibility from institutions to the clinical workplace threatens assessment 'of' learning.

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## Using Artificial Intelligence to help develop high clinical complexity medical assessment content

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**Introduction:** The multiple choice question (MCQ) is a popular medical assessment format. MCQs usually require a significant time investment when written by clinician experts. Large language models such as GPT-4, a type of generative artificial intelligence (AI), may be a potential tool for MCQ design. Evaluation of the quality of AI-generated MCQs is required to validate their use in practice.

**Methods:** Human-generated MCQs, at both novice and expert level, were compared with AI-generated MCQs. Clinically complex items aimed at the level of the graduating medical student were selected/produced. A generic prompt for GPT-4 was engineered, which included item-writing guidance, example MCQs, and key learning points. A standardised scoring system was developed for a consensus panel to objectively evaluate each MCQ, blinded to the author, on categories including content validity, scope, item anatomy, cognitive skill level, item-writing flaws (IWFs), feedback comprehensiveness, scientific accuracy, adequacy of clinical reasoning, and global impression of fitness for use.

**Results:** Statistical analysis showed that all groups (novice, expert, and AI) were able to generate items within scope. AI items were better than Novice in their content validity, minimising IWFs, and global impression. Expert items were better than Novice in all categories. Expert items were better than AI items in content validity, feedback accuracy and clinical reasoning. They also tended to test higher order cognitive skills. There was no difference in the global impressions of Expert and AI items, which suggests they are comparable overall.

**Discussion:** With adequate prompt engineering, GPT-4 can produce MCQs testing clinically complex concepts for medical assessment at the level of the graduating medical student. The quality of AI outputs is comparable to experts, however human validation is necessary to ensure content validity. The AI-generated explanatory feedback was adequate in accuracy and clinical reasoning, which may serve as an educational tool for learners.

## Unpacking the nuances of quality assurance processes in programmatic assessment - a scoping review

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### Introduction

Programmatic approach emerged as an optimal panacea for enhancing learning and engagement. Emerging issues around assessment fatigue, validity, transparency, fairness within systems incorporating programmatic approach to assessment reforms have been identified<sup>1</sup>. A paucity of evidence around quality assurance processes such as standard setting and moderation within programmatic assessment systems is lacking. This scoping review explores how quality assurance processes (such as moderation and standard setting) are undertaken in undergraduate health professions education programs that are either programmatic or non-traditional in their approach.

### Methods

The Joanna Briggs Institute (JBI) approach is used to conduct this Scoping Review<sup>2</sup>. Inclusion criteria considers peer-reviewed publications in health professions education within the last five years. The search terms include “undergraduate students”, “health professions”, “programmatic assessment”, “benchmarking”, “moderation”, “standard setting”, and “committees”. Eight databases are in use. Two reviewers will pilot-test the screening criteria and data extraction forms, and independently screen the literature. In case of disagreement, an external reviewer will be considered.

### Results

Preliminary results show an inconsistent exploration of quality assurance processes within programmatic assessment approaches. When implemented, these are used in line with international trends in academic innovation, in response to local accreditation demands, or as part of implementing professional registration processes. Studies present quality assurance either in general (program level) or in specific teaching and learning activities (e.g. Situational Judgement Tests – SJTs and Entrustable Professional Activities - EPAs). Most of the studies focus on medical and nursing students. Final results will be available by the time of the conference.

### Discussion

Insights from this scoping review emphasise the need to further investigate how to implement consistent quality assurance processes within programmatic and non-traditional assessment approaches in health professions educational programs. Additionally, research exploring these processes within different disciplines, and across regions/countries, will facilitate the identification of key contextual issues for its implementation.

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## How and why educators provide feedback to students

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### **Introduction/Background**

Despite the importance of feedback in learning and teaching, literature suggests student experiences of feedback are incongruent (Morley et al., 2019), resulting in disparities between students' understanding of the purpose of feedback and educators' intentions for providing feedback. When feedback is crucial for learning, it is necessary to understand why such inconsistencies exist between the student and teacher. Therefore, the aim of this study is to explore feedback provider's provision of feedback to pre-registration nursing and midwifery students.

### **Methods**

A qualitative research design informed by grounded theory methodology. Data are collected from individual interviews with two purposive samples - Registered Nurses supervising students in an acute clinical setting and academics teaching students at university. Data collection and analysis occur simultaneously, with the use of theoretical sampling, constant comparison using inductive and abductive logic, memo-writing, coding and categorising of data and theoretical sensitivity (Charmaz, 2014).

### **Results/Evaluation**

Findings from 23 participants (15 university academics and 8 Registered Nurses from the clinical setting) identified four themes: conceptions of feedback, purpose of feedback, feedback supporting student learning and feedback hindering student learning. Both participant samples unanimously conceptualised feedback as an important process and a form of assessment to inform student's learning. Feedback was considered a valuable tool for motivating students to improve their knowledge and skills for growth and development. Ultimately, feedback was deemed essential for patient care and safety. However, the value of feedback relied upon used feedback practices.

### **Discussion**

Understanding the intentions for provision of feedback will enable academics and clinical educators to offer clarity to students about feedback practices to minimise incongruencies and ensure feedback practices are meaningful and valuable to enhance student learning.

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# Unveiling innovative approaches to formative OSCEs: Insights from faculty examiners, Year 3 Students and Year 4 near peer assessors

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## Background

In the realm of medical education, the integration of near peer assessors (NPAs) in formative Objective Structured Clinical Examinations (OSCEs) is gaining prominence as an innovative assessment approach. Existing literature underscores NPAs' potential to enhance formative assessment by providing relatable insights, quality feedback to peers, and cultivating critical assessment skills<sup>1, 2</sup>. This study explores the perspectives of faculty examiners, Year 3 medical students and Year 4 near peer assessors regarding the integration of NPAs in formative OSCEs.

## Methods

Conducted at a Victorian clinical school, the study involved eight faculty examiners, 29 Year 3 medical students, and 18 Year 4 near peer assessors in a seven-station formative OSCE. Following the OSCE, all participants completed individualized written surveys, utilizing Likert scale responses and free-text inputs.

## Results

Survey results indicated favourable opinions among faculty examiners and Year 3 students regarding NPA involvement in formative OSCEs. Both groups acknowledged benefits such as heightened student engagement and enriched peer-based learning within a supportive environment. Year 3 students and faculty examiners agreed on the valuable insights and constructive feedback provided by their near peer assessors. While faculty examiners expressed concerns about maintaining consistency and objectivity among NPAs, most Year 4 near peer assessors did not share this viewpoint. Free-text responses from Year 4 assessors emphasized the value of the experience in developing and refining their clinical skills and assessment literacy. All participants consistently highlighted the need for additional training and support for near peer assessors to effectively fulfil their roles.

## Discussion

This study contributes to the evolving body of evidence on the advantages and challenges of incorporating NPAs in formative OSCEs. The findings suggest that NPAs could offer an innovative solution for education settings facing resource constraints. Further research adopting larger sample sizes and an assessment of inter-rater reliability is required to facilitate the widespread adoption of this novel approach

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### “I think that this goes deeper than my pay grade”: Academic and student perspectives on use of AI for reflective writing in nursing and midwifery

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#### **Introduction/Background**

This study compares the ethical perspectives of nursing and midwifery academics and English as an Additional Language (EAL) students on the use of AI-generated online language assistant tools (e.g. Google Translate, Grammarly) for writing university assignments. The study also explores differences in the perceptions of academics and students in relation to the challenges EAL students face when writing reflective assessments in nursing and midwifery. The project answers calls for gaining a clear understanding of all stakeholders' views as a key step towards developing grounded university policies on the use of AI to assist academic writing (e.g. Paterson, 2022).

#### **Methods**

In semi-structured face-to-face and ZOOM-based interviews, 23 EAL nursing and midwifery students and 10 academics discussed the challenges students face when writing reflections and their ethical perspectives on the use of AI-generated online language assistant tools for academic writing. Using framework analysis, the researchers developed themes and codes to categorise and compare perspectives across the two groups of participants.

#### **Results/Evaluation**

Students' voices varied greatly as to whether use of tools is ethical, results in loss of text ownership or negatively impacts on learning. Comparatively, academics seemed less concerned about academic integrity than students and deferred readily to higher-level university policies to guide their perspectives. Academics also tended to view use of online language assistance tools as having a positive impact on student learning, but at the same time, highlighted the danger of overreliance. While EAL nursing and midwifery students indicated that writing in English is a key challenge for assessment writing, academics focused on sociocultural aspects rather than language.

#### **Discussion**

The results indicate a need for further dialogue, training and clarification in terms of academic assessment expectations, approaches to assignment writing and the use of AI-generated language assistance technology by EAL students in health professions education.

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# Scholarly, regulatory, and organisational factors influencing eHealth data analytics implementations within the CPD ecosystem: integrated findings from a multi-study project

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## Background

In recent times there has been a shift towards strengthening Continuing Professional Development (CPD) for medical practitioners, with more emphasis given to CPD activities related to daily practice, aligned with professional standards and workplace assessment, and based on health outcomes measurement and quality improvement.

In this context, academia and industry are investigating the linkage between clinical performance data and medical practitioners' learning and CPD, with a focus on eHealth data analytics<sup>1</sup>.

This multi-study project aims to contribute to these research efforts examining the roles and functions of CPD stakeholders in fostering the use of eHealth data analytics for strengthened CPD.

## Methods

The project included the following studies: i) a scoping review with a consultation exercise with international experts<sup>2</sup>; ii) an analysis of medical regulations with policy makers' interviews; iii) a policy implementation gap analysis with CPD providers.

Findings were integrated in order to identify common themes, patterns, or discrepancies, generate a more cohesive understanding of the topic under investigation, and make informed recommendations for further research and action.

## Results

Integration of findings revealed the emergence of 4 themes (value and opportunity, uncertainty, data issues, medical practitioners' attitudes) and 1 pattern (patients' insights). It also allowed for the identification of hindering factors such as policy content and development, healthcare services' business and legal priorities, eHealth data system vendors' role, and the cultural aspect of medical self-regulation.

## Discussion

The pursuit of leveraging eHealth data analytics for strengthened CPD is ongoing.

This project highlights the need for a holistic approach, innovative thinking, collaboration, and real-world solutions in the evolving landscape of medical regulation and education.

Further theoretical and applied research is vital to validate the value of eHealth data use in CPD, understand the CPD ecosystem, and drive meaningful cultural change.

Success depends on fostering communication, collaboration, and engagement among CPD stakeholders.

## References

- <sup>1</sup> Janssen, A., Talic, S., Gasevic, D., Kay, J., & Shaw, T. (2021). Exploring the Intersection between Health Professionals' Learning and eHealth Data: Protocol for a Comprehensive Research Program in Practice Analytics in Health Care. *JMIR Research Protocols*, 10(12). <https://doi.org/10.2196/27984>
- <sup>2</sup> Pizzuti, C., Palmieri, C., & Shaw, T. (2023). Using eHealth Data to Inform CPD for Medical Practitioners: A Scoping Review with a Consultation Exercise with International Experts. In *Journal of Continuing Education in the Health Professions* (Vol. 43, Issue 4, pp. S47–S58). Lippincott Williams and Wilkins. <https://doi.org/10.1097/CEH.0000000000000534>

## Teaching with and through technology: a framework for teaching physical examination in the digital age.

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<sup>1</sup>*Deakin University*, <sup>2</sup>*University of Copenhagen*

### **Introduction/Background**

There is a growing presence of digital technologies in clinical learning environments. However, there is little research into how technologies shape embodied teaching and learning for health professional students. This study aims to explore current teaching practices of physical examination across four health disciplines, and to understand how digital technologies are used to facilitate the development of bodily knowledge.

### **Methods**

A qualitative interpretive approach was undertaken. In-depth interviews with 18 clinical educators across the disciplines of medicine, physiotherapy, midwifery, and nursing were held. These interviews investigated their current practices for teaching physical examination. The interviews were transcribed, and a thematic analysis was conducted to interpret the data, sensitized by the theoretical approach of body pedagogics.

### **Results/Evaluation**

We interpreted a framework of five approaches where digital technologies are used to develop bodily knowledge: for enhancing sensate knowing, for modelling, for rehearsing, for guiding practice, and for providing feedback.

### **Discussion**

The findings from this study suggest that in current teaching practices, digital technologies may be used to facilitate multiple essential elements of physical examination instruction. We present a framework that recognises the multiple roles of digital technology for developing bodily knowledge in the context of physical examination.

## Otaro - An interactive and immersive E-platform to enhance student engagement; A blended interprofessional community of inquiry

**Ng J**<sup>1</sup>, Shi S<sup>2</sup>, Zhang L<sup>2</sup>, Cham K<sup>1</sup>

<sup>1</sup>*Department of Optometry and Vision Sciences, The University of Melbourne,* <sup>2</sup>*Department of Infrastructure Engineering, University of Melbourne*

### **Introduction:**

The Otaro project is a collaboration between The University of Melbourne Faculty of Engineering and IT, Faculty of Medicine, Dentistry and Health Sciences and Industry partner AIBUILD to create an all-in-one digital learning technology platform that allows for the synthesis of immersive, interactive and innovative augmented/virtual reality teaching resources not restricted by physical location. With the return of face-to-face learning post COVID-19 this project aims to identify opportunities and methods to enhance student engagement in higher education using both innovative technology and interprofessional activities.

### **Methods:**

Twenty students (12 from Optometry and 8 from Engineering) were exposed to a virtual interprofessional learning environment constructed using Otaro which consisted of online video questions and two hospital settings. Data collection of the student experience was via physical paper survey of 15 questions on a 5-point Likert scale as well as small 4-5 persons focus groups. Engineering students were also requested to partake in a separate QUALTRICS survey prior to attending the interprofessional workshop. Survey data was quantitatively analysed whilst focus group data was qualitatively analysed; initially by inductive coding and then by deductive coding drawing inspiration from the Community of Inquiry Framework for relevance to remote learning and student engagement.

### **Results/Evaluation:**

All students participated in data collection. A Cronbach alpha value of 0.82 was obtained for the survey. 80% of students agreed/strongly agreed that virtual environments should be featured in future teaching programs and 85% of students felt the same about interprofessional learning activities. Qualitative analysis identified themes which aligned with and reflected the survey results. Some students suggested better design of the learning tasks could lead to more powerful education experiences.

### **Discussion:**

Innovative technologies and interprofessional learning tasks have potential for revitalizing student engagement, communication skills and address social deficits post COVID-19. However student driven feedback is paramount for effective implementation.

## Smart Tutorials the Revolution

**Hallman S<sup>1</sup>**

<sup>1</sup>*Otago University*

### **Introduction/Background**

AI is here to help the tutorial revolution. Solving, increased student number, boring didactic teaching and the need for concise on learning and revision resources.

This presentation shares how embracing AI tools can solve so many common problems in providing good case-based learning. Smart Tutorials uses Smart Import from H5P to generate the learning content. This is authored by the expert. This becomes ½ the lesson, so student teacher ratio is better with ½ the class doing online learning while the other is doing case-based scenarios. Finally, the online content is now a revision resource. To complete the cycle students and staff refine the content through action research methodologies. The results: changed delivery to case based learning and concise learning/revision resources that are easily updated.

### **Methods**

A voice over powerpoint is converted into a video which is fed through smart import. This creates an online learning package which enables differentiated learning. The expert casts their eye over the content and amends/refines. The class is split in 2. 16 they complete the online content in ½ and hour. Students can watch the video or read the transcript, even do flash cards, mcqs and look at the summary. Students then come the ½ hour case-based session with their acquired knowledge and apply it to cases. Students and staff review the content at the end of their study for that specialty.

### **Results/Evaluation**

Using action research methodologies staff and students buy into the research project. This is motivated by students to have less didactic learning and create concise content/revision resources. Staff use the same time to deliver to 32 students but with a 16/1 ratio from the split class. They also get to just do case-based learning and have their learning content magically converted by AI. Having participated in the learning, staff and students then meet to revise the resources. Surveys at the end of the academic year will compare the kinds of tutorials to see what the students prefer.

### **Discussion**

Discussion will focus on process, sustainability, and benefits for both students and staff. Tips and strategies for implementation will be shared in this presentation.

### **References**

## Student access of an online clinical skills video library before, during and after the COVID-19 pandemic

**Jaworski A**<sup>1</sup>, Douglass A<sup>1</sup>, Watt C<sup>2</sup>, Meng Cham K<sup>2</sup>

<sup>1</sup>Deakin University, <sup>2</sup>The University of Melbourne

### Introduction

The COVID pandemic resulted in pivotal changes to optometric curriculum, including limited face-to-face learning opportunities for clinical skills training and increased online teaching. A web-based video library of fundamental and advanced clinical skills taught during the first two years of The University of Melbourne's Doctor of Optometry (OD) four-year program was created in 2012 to enhance self-directed and onsite learning. The library includes model instructional, summary and student-generated videos and videos with scripted errors.

### Aims

To explore student access of the video library before, during and after the COVID pandemic.

### Methods

Deidentified video library access data were examined for 2018 (n=273 students), 2019 (n=305), 2020 (n=314), 2021 (n=302), 2022 (n=334) and 2023 (n=302) for OD1s (first year) to OD4s (final year). Videos were grouped by design type (gold standard, scripted errors, summary and student generated), and clinical skill categories.

### Results

The number of videos watched per student significantly decreased with progression through the course ( $p < 0.05$ ). The number of videos watched by OD1s decreased significantly in 2020 and increased significantly in 2021 for OD2s ( $p < 0.05$ ). Gold standard videos were watched most often overall ( $p < 0.05$ ). Video access reflected the stage of training. A limited number of students critiqued at least one video (average: OD1 20%, OD2 5% and 0% in OD3 and 4).

### Discussion

Video access largely occurs in the early years of optometric training, with very few students engaging at higher year levels and undertaking critiques. Video access broadly follows the curriculum in the early years of the course and is likely driven by remediation needs during clinical placement in later years. Contrary to other online video usage during the COVID-19 pandemic, access decreased significantly in 2020 for OD1s. This may reflect online fatigue during this period. Consistent integration into the course may result in higher engagement.

## How can we cultivate educational innovations to identify urgent radiological findings?

**Lee K**<sup>1,2</sup>, Tapia K<sup>1</sup>, Suleiman M<sup>1</sup>, Jones C<sup>1,3</sup>, Brennan P<sup>1</sup>, Ekpo E<sup>1,4</sup>

<sup>1</sup>The University of Sydney, <sup>2</sup>Monash University, <sup>3</sup>I-MED Radiology, <sup>4</sup>University College Cork

### **Introduction/Background**

To successfully prepare for graduate responsibilities, medical students require fundamental skills in image interpretation, particularly the identification of time-sensitive findings on medical images. The role of e-learning in facilitating skill development in image interpretation is poorly understood. This work reviews the outcomes of educational interventions for teaching image interpretation and the extent to which they align with published educational recommendations.

### **Methods**

Six databases were searched to March 2023 (EmBase via OVID and MEDLINE, PubMed, Science Direct, Scopus, Web of Science). Three categories of search terms were combined: e-learning; radiology; medical students. Inclusion criteria were assessment of medical students' knowledge and skills gained via an e-learning innovation in image interpretation. Included studies were assessed by two authors using the Quality Appraisal for Diverse Studies tool. Extracted data were thematically grouped: e-learning delivery, e-learning methodology, alignment with current guidelines.

### **Results/Evaluation**

Thirty-four studies met the inclusion criteria and showed no clear difference between e-learning and conventional learning in image interpretation. Effective e-learning solutions demonstrated the following characteristics: self-paced, highly interactive and experiential. Identical interventions did not consistently produce similar outcomes for different pathologies. Learners who were exposed to higher volume of cases had improved learning outcomes and a reduction in sequential context effects. Some aspects of recommended image interpretation education from the published guidelines were frequently represented via e-learning. However, findings requiring urgent action were minimally represented.

### **Discussion**

Educational innovations via e-learning that are highly interactive, involve large data sets, reflect real-life situations, and consider the complexity of the pathologies may improve learning outcomes. However, data on the impact of learning interventions for urgent findings are limited, emphasising the need for innovations in this area. Discussion on the findings of this systematic review will be used as a platform to explore methods for effective resource creation in the future.

### Strengthening Capacity for Implementation Research: Learnings from the Global Alliance for Chronic Diseases Implementation Science School and e-Hub

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<sup>1</sup>*Baker Heart And Diabetes Institute*, <sup>2</sup>*University of Melbourne*, <sup>3</sup>*La Trobe University*, <sup>4</sup>*School of Public Health and Preventative Medicine, Monash University*, <sup>5</sup>*Global Alliance for Chronic Diseases*

#### **Background:**

Non-Communicable Diseases (NCDs) pose a significant global health challenge. Effective implementation of evidence-based interventions is crucial for improving health outcomes. However, a lack of robust capacity at both national and local levels, compounded by various contextual and political factors, has hindered progress, requiring continuous professional development. Supported by the world's major health research funding agencies, including NHMRC, the Global Alliance for Chronic Diseases (GACD) addresses this gap through its Implementation Science Schools (ISS), leveraging the GACD Implementation Science e-Hub. The e-Hub is an innovative online platform designed to advance knowledge and skills in NCD-related implementation science.

#### **Methods:**

Adapting to the constraints imposed by the COVID-19 pandemic, the GACD transitioned its ISS to a virtual format. Utilising the RE-AIM framework and Kirkpatrick model principles, this study evaluates the feasibility, acceptability, and effectiveness of these virtual schools. Data were collected from trainee evaluations and e-Hub analytics, assessing the platform's impact on strengthening implementation research capacity.

#### **Findings:**

Between 2020 and 2023, the virtual ISS engaged 174 trainees spanning 56 nationalities (over 80% are low- and middle-income countries) from six WHO regions. The online format proved efficient in program delivery and networking, fostering international collaboration. The e-Hub, with over 54,000 views since its inception in 2020, played a pivotal role, offering a comprehensive, accessible online learning environment. Trainee feedback highlighted the effectiveness of this approach in building essential skills and knowledge, showcasing the virtual format's potential for wider scalability.

#### **Implications:**

The transition to virtual learning environments for capacity strengthening and professional development in implementation research has demonstrated considerable success. This approach offers an adaptable, scalable, and sustainable model for global health education, particularly in resource-constrained settings. By facilitating international collaboration and knowledge sharing, such initiatives are instrumental in strengthening the global response to NCDs and can serve as a blueprint for future training programs in health professions education.

#### **Keywords:**

Non-Communicable Diseases, Implementation Research, Global Health, Virtual Learning, Capacity Building.

## Dementia care and support training in rural and remote Australia: survey findings from a Dementia Training Australia project on the perspectives of a distinctive and diverse workforce

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<sup>1</sup>*Western Australian Centre For Rural Health, The University of Western Australia*, <sup>2</sup>*Dementia Training Australia, The University of Western Australia*

### Background

Compared with urban Australia, rural and remote areas have a proportionately higher aged population and greater challenges in sustaining a healthcare workforce. As part of a project exploring challenges to and opportunities for dementia care and support training in rural and remote Australia, we aimed to enhance existing knowledge from published literature and stakeholder group discussions by developing and circulating a survey instrument to investigate the perspectives on and preferences for training of rural and remote health/aged care workers providing dementia care in diverse occupations and settings.

### Methods

The survey comprised multiple choice, Likert scale and open-ended items on respondents' appraisal of their current dementia training, preferences for training content and delivery, demographic characteristics, work role, workplace setting and geographical site. After piloting, the online survey was promoted to rural and remote organisations and professional networks nationwide. Analysis incorporated descriptive summarisation of respondent characteristics, statistical inference on closed-ended responses across key respondent subgroups (i.e., occupation/role, workplace setting, and remoteness), and thematic content analysis of open-ended responses.

### Results

Respondents (N=558) from residential aged care, community/primary care and hospital settings across all Australian states and territories included 61.7% from degree-requiring health professional/management positions, 19.0% certificate-requiring workers (predominantly personal care assistants), and 8.4% enrolled nurses. Overall, ~50% considered current dementia training in their workplace to be inadequate, as did a majority in relation specifically to care of Indigenous clients. Hospital-based workers in particular reported shortcomings of training. Respondents noted time limitations and other work pressures impeding workers' participation in training, and insufficient opportunities for input into determining priorities for training content and delivery. Respondents overwhelmingly expressed preferences for locally relevant content and face-to-face/onsite training delivery, ideally by dementia experts.

### Discussion

Optimal dementia training in rural and remote Australia requires implementation of locally relevant programs along with remediation of broader health workforce challenges.

## Exploring Uncharted Territories: Role-Emerging Placements in Allied Health Education

**Alomari I**<sup>1</sup>, Tse T<sup>1</sup>, Lockwood K<sup>1</sup>

<sup>1</sup>*La Trobe University*

### **Introduction/Background**

A deeper look into role-emerging placements in allied health education is undertaken in this study to identify the advantages and disadvantages for students, educators, and placement organisations.

### **Methods**

Using CINAHL, MEDLINE, PsycINFO and EMBASE databases, a mixed methods systematic review was conducted. Search terms included "non-tradition\*", OR "role-emerging\*", OR "clinic\*", OR "field education", OR "indirect supervision", OR "off-site", AND "student\*", OR "educat\*", OR "Allied health", OR "allied health personnel". Two independent researchers screened the paper for inclusion. A third resolved any discrepancies. We used an integrated approach of convergent integration, following the JBI methodology for mixed methods systematic reviews (Lizarondo et al., 2017).

### **Results/Evaluation**

Among the 1759 articles identified, 91 duplicates were removed. Following title and abstract screening, 72 articles were reviewed in full text, resulting in 32 final articles selected for inclusion. Data extraction is currently underway, and analysis will follow.

### **Discussion**

The expected outcomes will highlight the benefits and challenges of these complex placements and provide insight into integrating role-emerging placement within a program of allied health education.

### **References**

Lizarondo L, Stern C, Carrier J, Godfrey C, Rieger K, Salmond S, Apostolo J, Kirkpatrick P, Loveday H. Chapter 8: Mixed methods systematic reviews. In: Aromataris E, Munn Z (Editors). Joanna Briggs Institute Reviewer's Manual. The Joanna Briggs Institute, 2017. Available from <https://reviewersmanual.joannabriggs.org/>

## Pedagogy or pragmatism: Regulator perceptions of the value of placement and changes to placement requirements post COVID-19

**Thomas Y<sup>1</sup>, Penman M<sup>2</sup>, Raymond J<sup>3</sup>, Zeng G<sup>2</sup>**

*<sup>1</sup>Otago Polytechnic Te Pukenga, <sup>2</sup>Curtin University,, <sup>3</sup>The University of Sydney*

### **Introduction/Background**

Clinical education standards in allied health are defined and reviewed regularly by professional regulatory authorities. A previous review of the education standards documents illustrated the lack of a clearly articulated understanding of the educational pedagogy other than an expectation that students would develop competence to practice in their placements (Penman et al, 2023). In some instances, regulatory authorities had made changes to the requirements for clinical practice, in response to Covid 19. However, it was unclear if these changes, and the learning that arose from them, would influence future revisions of the standards. The aim of this study was to (i) examine practice education as understood by the regulatory authorities, and (ii) explore the extent of variations made to the standards in response to the challenges created by COVID-19.

### **Methods**

This presentation reports on the second stage of an explanatory sequential dependent mixed methods research design. Semi-structured interviews were completed with representatives from seven AHPRA and NASRHP regulatory authorities. Data were analysed inductively using reflexive thematic analysis (Braun & Clarke, 2022).

### **Results/Evaluation**

Four preliminary themes, drawn from the perspective of the regulatory authorities will be reported: value of clinical placement to student; benefits of clinical education to the profession, clinical education pedagogy; and shifting perspectives.

### **Discussion**

The findings of this study indicate that while regulatory authorities determine the accreditation standards for placements, the design of these are primarily informed by key stakeholders, consultation with the profession, the educational institutions and educators, and the feedback provided through accreditation processes.

The changes that were made in response to Covid-19 were based on pragmatic factors rather than pedagogy, and were mostly reversed. The study highlights the lack of a clear pedagogical approach to clinical education and further research is needed to understand about the pedagogy that does or should inform practice education.

## Learning paediatrics in general practice – Impact? Continuity? Equivalence?

**Walters L**<sup>1</sup>, Sthavan S<sup>2</sup>, Morgan K<sup>3</sup>, Pelligrini D<sup>3</sup>

<sup>1</sup>Adelaide Rural Clinical School, <sup>2</sup>Adelaide Rural Clinical School, <sup>3</sup>Adelaide Rural Clinical School

### Introduction/ Background

Adelaide Rural Clinical School (ARCS) places students in towns across rural SA, the majority of which have GP lead hospitals and occasionally a very small number of non-GP specialists. In order to provide each student with paediatric exposure, students have historically rotated through a paediatric clinical placement in Pt Augusta.

Increased student rural cohort numbers (from 8 to 45 students) has reduced paediatric hospital placement length to only two weeks duration. These short placements have become a burden to the already stretched rural paediatricians and of little value to the students.

### Methods

ARCS is undertaking consultation with students, paediatricians and local site academics, with a view to having students remain in their GP practices to meet their paediatric curriculum requirements.

### Results/Evaluation

It is proposed that students will follow paediatric patients from their rural general practice, to the local hospital and back into the community.

### Discussion

This model of clinical placement for paediatrics has been undertaken successfully in rural sites by other Australian medical schools for over 20 years<sup>1</sup>. However, there are few contemporary studies which unpack the impact on patient outcomes, student exam results, and future careers. General practice offers opportunities for increased continuity of supervision, which has been correlated to student performance in some work-based assessments<sup>2</sup>.

This PeArLs will provide an opportunity for participants to share they experiences, concerns and successes.

### Issues/Questions for exploration

- What experience to other educators have of focusing paediatric clinical exposure in general practice?
- What is the impact to student learning of focusing paediatric clinical exposure in general practice?
- How do medical schools measure educational equivalence?
- Is equivalence what we want?

### References

1. Wright, H.M., Maley, M.A., Playford, D.E., Nicol, P. and Evans, S.F., 2017. Paediatric case mix in a rural clinical school is relevant to future practice. *BMC Medical Education*, 17(1), pp.1-10.
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## Creating multiformat tailorable online trainings - ARPANSA's Occupational Radiation Exposure (ORE) modules

**Mason A**<sup>1</sup>

<sup>1</sup>ARPANSA

### **Introduction/Background**

ARPANSA has developed and **free** online Occupational Radiation Exposure material for staff in medical facilities that use ionising radiation, e.g. X-rays/CT and nuclear medicine. The modules are brief (10-35 minutes in total) filling 'gaps' identified by medical physicists, trainers/educators, RSOs and regulators.

The ORE modules provide useful occupational radiation protection and safety information for everyone, ranging from staff in local medical imaging facilities through to those in our major hospitals. The material is tailorable by occupation (such as nurses, cleaners, radiologists etc.) and by the level of involvement with radiation (e.g. those in administration only need limited information, compared to staff in a nuclear medicine department).

### **Methods**

ORE was developed iteratively with key stakeholder input, including professional colleges, regulators, facility experts and end users, using contemporary learning strategies and techniques. Industry standard applications were used to maximise flexibility and compatibility.

### **Results/Evaluation**

ORE is an innovative set of training material. Its modular structure and flexible navigation allows for medical staff to individually tailor the content to better suit their needs. The modular nature makes additions and changes easy. Most facility staff will complete the tailored online course via the ARPANSA website - no login required. The material can also be downloaded to an organisation's SCORM compliant eLearning system or as an interactive PDF/PowerPoint to facilitate group Q&A sessions.

### **Discussion**

Evidence has shown that staff in medical facilities utilising ionising radiation can benefit from increased medical radiation safety awareness, and a common language and basis for understanding assists everyone. ARPANSA's ORE training materials fill a much-needed gap. Feedback is being sought on improvements and extending the scope to non-medical sectors including education, research and industrial facilities.

### **References**

<https://www.arpansa.gov.au/our-services/training/occupational-radiation-exposure-medical-facilities>

### Underperformance and failure in allied health practice placements: a scoping review

**Wray A**<sup>1</sup>, Attrill S<sup>2</sup>, Yaxley A<sup>1</sup>, Lewis L<sup>1</sup>

<sup>1</sup>*Caring Futures Institute, College Nursing & Health Sciences, Flinders University*, <sup>2</sup>*School of Allied Health Science and Practice, University of Adelaide*

#### **Introduction/Background:**

The experience of underperformance and failure of allied health students undertaking practice placements is largely absent from the literature. Placement performance can be disrupted for reasons beyond poor academic performance. This review aimed to describe the experiences of allied health students and clinical educators relating to underperformance and failure.

#### **Methods**

Twenty-two allied health professions were included in the review undertaken according to Arksey and O'Malley's framework for scoping reviews [1]. The search strategy included six e-databases (Medline, Emcare, Scopus, PsycINFO, CINAHL, Web of Science) and Google Scholar for grey literature. The titles and abstracts, and then full text of citations were reviewed against the eligibility criteria by two independent reviewers. Reference lists of included studies were searched, and forward citation screening was completed. Occupational Adaptation Theory [2] was applied to deductively code the key elements of Occupational Adaptation relating to the phenomena of underperformance and failure.

#### **Results/Evaluation**

The initial search resulted in 11,977 citations, with 43 studies representing seven countries across eight allied health disciplines meeting the eligibility criteria and included in the review. Six key themes relating to the underperformance and failure of allied health students undertaking practice placement were developed: (1) Contextual interactions, (2) Learning from underperformance and failure, (3) A good fail, (4) Gatekeepers, (5) Power and (6) Convergence. Themes described the processes of adaptation that influence the achievement of relative mastery.

#### **Discussion**

Gaining a better understanding of the problems and the experiences of student underperformance and failure, may enable educators, universities and placement providers greater insight into the complexity of the phenomenon. The application of theory offers a perspective beyond looking at 'who' is impacted and delves further into the influencing factors. This may lead to more positive, cost-effective and high-quality learning experiences and shift the deficit discourse of failure that often positions students as the problem.

#### **References**

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2. Garrett, S.A. and J.K. Schkade, *Occupational adaptation model of professional development as applied to level II fieldwork*. The American Journal of Occupational Therapy, 1995. **49**(2): p. 119-126.

## The Emerging NUM Program – Building Collaborative Competence and Enhancing and Expanding Leadership Skills

**Schlossberger E**<sup>1</sup>, Mulcahy M<sup>1</sup>, Tuqiri K<sup>1</sup>

<sup>1</sup>*Prince Of Wales Hospital*

### **Introduction**

Effective clinical leadership is required to lead and develop sustainable high performing teams. Nursing Unit Managers (NUMs) are front-line leaders needed to manage complex dynamic situations and create environments which support and enable staff to achieve professional, high standards of care. The Emerging NUM (ENUM) program aimed to develop a comprehensive skilled cohort of leaders using a person-centred multifaceted approach intended to support the development of nurses in their leadership journey.

### **Method**

The program commences with a three-week intensive training period including pre-program learning requirements; two workshops; shadowing both nursing and interdisciplinary health leaders in key roles across the facility and experiential learning through acting in the NUM role with mentor support. There are two further workshops and regular mentoring support over the remainder of the program.

This comprehensive program has been evaluated using mixed methods which include a pre and post program survey, Emotional Touchpoints at various time periods, feedback from key stakeholders and feedback from participants at completion of program.

### **Results**

The program has reduced recruitment time and costs by having an established leadership workforce ready for when leadership positions become available. Key learning and skill development includes effective communication, working with the interdisciplinary team to provide better care, advocating, and developing confidence in leadership abilities. The NUM mentor relationship has proven to be one of the most satisfying aspects of the program.

The programs greatest achievement is the preparedness and sustainability of the leadership workforce, establishing collaborative competence and creating a cohort of resolute and committed leaders who are currently shaping the future of healthcare.

### **Conclusion**

The emerging NUM program has been successful in preparing clinical nursing staff who are considering a role in management. It has enhanced and expanded their leadership skills and knowledge, building their collaborative competence, preparing them to take opportunities to act in the role of the NUM.

## Tracking trainee development: Preliminary validation of a tool designed to evaluate clinical psychology competencies over time

**Lawrence K**<sup>1</sup>, Taylor K<sup>1</sup>, Cairns R<sup>1</sup>, Gersch H<sup>1</sup>, McKay A<sup>1,2</sup>

<sup>1</sup>*School of Psychological Sciences & Turner Institute for Brain and Mental Health, Monash University,* <sup>2</sup>*Monash Epworth Rehabilitation Research Centre, Epworth HealthCare*

### **Introduction/Background**

Competency-based assessment on placement ideally involves evaluation of a trainee performing clinical skills using fit-for-purpose tools that are simple for clinical supervisors to use and informative to the trainee. The current study examined the potential utility of a new tool, the Psychology Competency Evaluation Tool – Summative (PsyCET-S), designed to assess the attainment of professional competencies in clinical psychology trainees.

### **Methods**

The PsyCET-S was created to track the development of competencies in seven core domains of clinical psychology practice. Twelve experts were used to establish the inter-rater reliability of the vignette ordering before being used to assess end of placement performance in clinical psychology trainees by both supervisors and trainees. Ninety-nine placement reviews of 45 trainees at different stages of training were analysed.

### **Results/Evaluation**

Strong inter-rater reliability in the rank ordering of PsyCET-S vignettes within each domain (Kendall's  $W > 0.9$ ) indicated their ability to capture competence development in trainees. Performance of the PsyCET-S was examined on 99 end of placement reviews for 45 trainees and showed a gradual increase in competence from early to later stages of training in all domains, with performance plateauing for the final internship placement. Evidence of both the leniency bias and the halo effect were evident. The results also indicated that supervisors were more lenient than the trainees were themselves.

### **Discussion**

The PsyCET-S supports trainees to self-monitor and evaluate the development of their professional competencies, in relation to expert guidance, which has capacity to optimise their learning and future practice as a Psychologist. This tool and its method for use has the potential to be adapted to suit other areas of psychological practice and allied health professional competencies more broadly.

### **References**

*Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.*

## Pharmacist medication review rounds with medical students.

**Leversha A**<sup>1</sup>, Bullock S<sup>1</sup>, Haigh C<sup>1</sup>

<sup>1</sup>*Monash University*

### **Introduction/Background**

In 2021, a pilot study was conducted with a small group of first clinical year medical students in Gippsland, who attended two medication review ward rounds with the clinical pharmacist academic. In 2022 and 2023, a medication review round was offered to all Year 3B medical students in Gippsland.

The project aimed to provide an opportunity for these students to increase their medication knowledge in a clinical setting, improve their understanding of the hospital pharmacists' role in healthcare, and enhance their experience of interprofessional interaction with other members of the healthcare team.

### **Methods**

A clinical pharmacist academic provided medication review rounds in real time.

An online questionnaire and a focus group generated data.

### **Results/Evaluation**

Major themes that emerged were that students appreciated the opportunity to focus on medications, providing a holistic view of the patients' medications, seeing the potential for interactions and adverse drug reactions and appreciating the importance of taking the best possible medication history. Students welcomed the opportunity to consider the patient and their treatment from a different healthcare perspective, and they reported a better understanding of the contribution that the clinical pharmacist can make to patient care.

### **Discussion**

Students indicated that they would have preferred more of these sessions paced across the year, and recognised the scope to expand and consolidate their knowledge of medications, as well as to learn and revise in the applied clinical setting. Scaffolding of learning by the clinical pharmacist academic was acknowledged as helpful. Students became more aware of the collaborative work of the health care team, 'working together' and 'the potential to recognise and minimise errors'.

This initiative highlights the learning opportunities available in the clinical setting. Supporting the students to review patient medications provides a structure for self-directed learning that further facilitates the development of clinical reasoning.

## Evaluating a novel training course about dementia-friendly eyecare for optometrists

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### Introduction/Background

Global reports<sup>1</sup> highlight the importance of access to eyecare for older adults living with dementia in communities, to help maintain their independence. However, people living with dementia experience barriers to accessing routine eyecare and are less likely to see an optometrist than people without dementia<sup>2</sup>. Optometrists experience challenges assessing people living with dementia, which could be addressed with evidence-based education/training to break down these barriers.

Research Aims:

- 1) Explore the impact of completing an evidence-based education intervention upon knowledge, attitudes and practice of optometrists regarding older adults living with dementia in the community.
- 2) Identify barriers and facilitators impacting translation of knowledge gained from the course into changes in practice.

### Methods

This mixed method evaluation study will utilise knowledge, attitudes and practice surveys and qualitative semi-structured interviews with learners completing the course. The Dementia Knowledge Assessment Scale (DKAS), Dementia Attitudes Scale (DAS), Confidence in Dementia Scale (CODES) will be completed pre-course, post-course, and one year post-course. A practice pattern survey completed pre- and one year post-course will explore practice changes. Interviews post-course and one year post-course will explore motivations for/experiences of completing the course, and practicalities in applying learning within place of practice.

### Results/Evaluation

44 optometrists have enrolled to date. We will present learner demographics and preliminary short-term outcomes data post-course, including mean change in self-reported knowledge and attitudes about dementia (DKAS and DAS scores), confidence in working with people with dementia (CODES score), and emerging themes around barriers and facilitators to translation of learning to practice.

### Discussion

The course attracted considerable interest, demonstrating a role in addressing unmet education/training needs identified from our research. Increasing optometrist capacity to provide dementia-friendly eyecare through an accessible, online course makes it easier for people living with dementia and family carers to find an optometrist who knows dementia, supporting access to eyecare.

### Title: Learning collaborative practice on clinical placements

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#### Introduction/Background

Interprofessional workplace learning takes advantage of already existing interprofessional teams and structures to provide rich learning opportunities as part of a students' everyday workplace practice while on placement. However, literature indicates<sup>1</sup> a lack of opportunities for students to undertake interprofessional workplace learning to consolidate collaborative practice.

The initiative we will share is positioned alongside Australasian educators exploring how clinical placements (OR workplace learning can support learning about collaborative practice<sup>2</sup>. This work could assist ward-based educators and their students to engage in the naturally occurring opportunities by making them visible and accessible to learners.

#### Methods

A new interprofessional workplace learning opportunity has been embedded in the University of Otago curriculum for 4<sup>th</sup> year medical students in 2024. Students will be tasked with approaching and organising to spend 2-4 hours with students or clinicians from two professions including During an Older Persons Health placement module fourth year medical students will have opportunities to work with or alongside students or clinicians from physiotherapy, pharmacy, and nursing. Students and clinicians will be provided with guidance about the learning opportunity and students will be asked to reflect on their experiences in group discussions and a learning portfolio. The aim is to learn from the experience by noticing and discussing how to best work together in the future.

#### Results/Evaluation

Evaluation data will be collecting during 2024. Haji's evaluation Will guide mixed methods data collection before, during, and after the first year of implementation. Data collection will include interviews with clinicians, focus groups with staff, and analysis of planning meeting notes.

#### Discussion

Evaluation from the first six months of implementation will be synthesised and presented. Discussion will focus on the process of establishing interprofessional workplace learning opportunities, sustainability, and learning outcomes for the students.

#### References

- 1.Dunston R, Forman D, Moran M, Rogers GD, Thistlethwaite J, Steketee C. Curriculum Renewal in Interprofessional Education in Health: Establishing Leadership and Capacity: Report to the Office for Learning and Teaching 2016.
2. Brack & Nora Shields. Short duration clinically-based interprofessional shadowing and patient review activities may have a role in preparing health professional students to practice collaboratively: a systematic literature review, *Journal of Interprofessional Care*, 2019: 33:5, 446-455, DOI: [10.1080/13561820.2018.1543256](https://doi.org/10.1080/13561820.2018.1543256)
- 3.Haji F, Morin MP & Parker K, Rethinking programme evaluation in health professions education: beyond 'did it work?' *Medical education*, 2013:47:342-351

## Evaluation of a simulation-based interpretation – occupation therapy interprofessional education program

**Chu M<sup>1</sup>**, Hlavac J<sup>1</sup>

<sup>1</sup>*Monash University*

### **Introduction/Background**

Individuals with limited English proficiency living in an English-speaking country (e.g. Australia) have language barriers limiting their access to health care and communicating their health care needs to health professionals leading to poorer health outcomes. Provision of professional interpretation services in health care is a strategy to reduce language barriers in health care. Occupational therapists (OT) provide services to enable people to increase participation in activities they need and want to do. It is essential for OTs to communicate effectively with their clients to conduct assessments to understand their needs, provide treatment and support. In practice, professional interpreters and OTs often work together to provide culturally safe care. An interpreter – OT interprofessional education program (MITSBOT) was developed to foster students' understanding of the role of each profession and to learn to work effectively with each other.

### **Methods**

This study aims to explore students' responses on the effectiveness of a co-designed, co-taught simulation-based MITSBOT session aimed to enhance students' general understanding of working with the other professional group. Students who attended the session were invited to participate in this study. The questionnaire consists of five questions using a Likert scale and four short answer questions. It was used to collect study participants' responses immediately after they attended the session.

### **Results/Evaluation**

More than 90% of the study participants agreed or strongly agreed that their knowledge of how to work professionally with the other profession and their own profession increased; the MITSBOT session is an effective way to learn to work with other professional group; and the session gave them skills to work with culturally and linguistically diverse populations.

### **Discussion**

The results of this study supported the effectiveness of a joint interpreter and OT simulation-based session in preparing students for future practice.

# Innovation in Clinical Education within Public Health - A Psychology Mentorship Training Pilot – an opportunity for expand psychological skills inter-professionally?

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<sup>1</sup>*Monash Health*

## **Introduction/Background**

Clinical Education for Public Health Psychology is a new focus in the Clinical Education field. Clinical supervision provided the routine education needs for the public health psychology workforce prior to educators being appointed. The process of accreditation for psychological supervisors is comprehensive and the time required to become eligible is extensive. The ratio of supervisors to students and registrars in public health services and time available to provide this supervision is inadequate. The solution, allocating mentors to work alongside supervisors. To date, mentors have had no supervision training, presenting a risk to supervision governance and lacking a skilled approach in developing new learners. Lack of training can also result in mentor role anxiety. To address this, a pilot mentorship training program has been initiated at Monash Health.

## **Methods**

The initial cohort are mentors working with provisional psychology students. They attended 8 hours of training covering, learning styles, mentorship interpersonal skills, communication templates and relationship strategy planning. Follow up to training includes two group supervision sessions for the mentors and a briefing session with associated resources to their allocated supervisors. Qualitative and quantitative evaluation conducted on completion of mentorship placement.

## **Results/Evaluation**

Pre and post assessment using The Mentoring Competency Assessment (MCA) Questionnaire<sup>2</sup> will be undertaken. The pilot will run from January till July 2024. Preliminary data post training shows an encouraging trend upward both quantitatively and qualitatively of mentor competency.

## **Discussion**

Training mentors in baseline mentoring skills is foundational for training as a supervisor. It fulfils “growing from within” ethos in developing staff skills and building retention in public health. It aims to provide mentors an opportunity to experience targeted training and foundational supervision educational skills. It is an innovative solution and has capacity to expand and collaborate with other health disciplines and services to upskill mentors’ interpersonal leadership skills.

## **References**

- <sup>2</sup>  
Fleming, M. H. (2013, July). The mentoring competency assessment: Validation of a new instrument to evaluate skills of reasearch mentors. *Academic Medicine*, 88(7), 1002-1008. doi:10.1097/ACM.0b013e318295e298

## Co-design of Interprofessional education measurement tool to understand health professional students' knowledge and attitudes towards Interprofessional Education.

**Hong S<sup>1</sup>**, Lin S<sup>1</sup>, Hughes J<sup>1</sup>, Walpola R<sup>1</sup>  
<sup>1</sup>UNSW

### **Background:**

Interprofessional education (IPE) is an approach to teaching and learning that brings together students or professionals from different healthcare disciplines to learn with, from, and about each other. Several validated tools have been developed to measure achievement of IPE-related accreditation standards, however, most of the tools have been developed and validated within medical and nursing students.

### **Aim:**

To establish the face and construct validity of a co-designed IPE questionnaire in a large cohort of healthcare students.

### **Methods:**

A co-design workshop will be conducted in Term 1-2024 at UNSW, Sydney with at least two student representatives (min n=12) from each health professional program at selected from non-first-year members of respective student societies. The focus group will assess the appropriateness of previously developed IPE measurement tools and will result in a co-designed tool. Students in respective programs (total n=410) will be invited to participate in the questionnaire before the commencement of their first IPE course in Term 2-2024.

### **Statistical analysis:**

The survey tool will be evaluated with both exploratory and confirmatory factor analyses performed to understand the psychometric properties of the survey tool and to establish construct validity.

### **Discussion**

There is limited evidence of co-designed, validated IPE measurement tools that have been developed from a large cohort of students from various health professional programs. The result of our study will contribute to the literature base and the utility of a such tool within multiple health professions. The results of the workshop will be available at the conference. Ethics will be obtained from UNSW.

**Keywords:** Interprofessional education (Education, Interprofessional), measurement tool, health sciences

## Using co-design principles to support interprofessional peer feedback exchanges and collaborative practice skill development

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<sup>1</sup>*University of Melbourne*

### Introduction/Background

Interprofessional learning provides opportunities for students to develop the skills required to work effectively in collaborative and interconnected professional settings. One of these skills is providing peers with effective feedback for their learning. We describe the outcomes of a project aimed at improving student preparedness for interprofessional and collaborative practice, approached from the perspective of supporting peer feedback skills. The setting for this project was a post-graduate student-run paediatric screening program involving students from audiology, optometry and physiotherapy.

### Methods

In Phase 1 of our study, we used student interviews, a workshop and submitted reflections to gather student and educator perspectives on peer feedback activities, exploring what would have better supported the interprofessional peer feedback experience. A new feedback approach was then co-designed with a volunteer student and interprofessional educator team, with supporting materials developed and tailored for the needs of the specific learning environment. Across Phase 2, we gathered student and educator feedback via interviews and student submitted reflections on the new feedback approach. Thematic analysis informed by Feedback Mark 2 framework has begun<sup>1</sup>.

### Results/Evaluation

Preliminary analysis of data reveals the following themes:

1. Appreciation of interprofessional peer feedback
2. Enablers to dialogic feedback
3. Use of supporting materials

### Discussion

Students reported drawing upon prior instances of feedback from discipline-specific settings in ways that are both supported and unsupported in the literature. Students appeared to be challenged by a perception that feedback must come from a more knowledgeable other, despite readily identifying the value of interprofessional feedback for their learning.

Whilst students reported that prompts within the provided supporting materials assisted interprofessional feedback exchanges, feedback conversations were influenced by feelings of awkwardness with their new peer. Building rapport and trust were seen as key to mitigating these challenges and promoting 'useful' feedback conversations, alongside potential benefits from more explicit priming for feedback exchanges.

### References:

1. Boud, D., & Molloy, E.. (2013). Rethinking models of feedback for learning: the challenge of design. *Assessment & Evaluation in Higher Education*, 38(6), 698–712.  
<https://doi.org/10.1080/02602938.2012.691462>

## An innovative student-resourced clinic / service-learning model preparing the future health workforce for interprofessional practice

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<sup>1</sup>*Southern Queensland Rural Health, The University of Queensland*, <sup>2</sup>*University of Southern Queensland*

### Introduction/Background

Southern Queensland Rural Health established the 'Health and Wellness Clinic' in 2019 aimed at providing service-learning for health students within an interprofessional collaborative practice (IPCP) model targeting chronic disease prevention. IPCP underpins the placement combining structured interprofessional education (IPE) sessions, co-delivered program activities, interprofessional (IP) observation, IP student supervision, case conferences and bespoke IP care plan notes and reflection tools. This presentation describes the IP service-learning model and student evaluation finding, with a focus on potential translation of the model to other IPE settings.

### Methods

A Student Experience Survey completed during their last day of placement measured overall quality elements around placement experience, range of IPE activities engaged in and prior exposure to IPE. The survey also included the Interprofessional Collaborative Competencies Attainment Survey (ICCAS) (1), a 20-question self-reported tool that gauges perceived change in knowledge in IP competencies.

### Results/Evaluation

A total of 190 students from Exercise Physiology, Physiotherapy, Psychology, Social Work, Dietetics, Nursing and Medicine participated in these IP placements totalling 1330 weeks. Evaluation of the student placement experience was positive with over 90% saying they had opportunities to interact and learn with the IP team. Over 95% of students reported they would recommend this placement. ICCAS scores showed improvements across all IP competency areas, with greatest increase in perceived skills in IP communication, awareness of role clarity, and collaborative care.

### Discussion

Incorporating feedback from students and staff, and recommendations from an external review, IPE sessions have increased in reach, number, and varied delivery modalities. Developed IP reflection tools and documentation are practical applications transferable to other clinic placement contexts, with potential interest for educators and services embarking on developing similar IP integrated service-learning models. IPCP models are hoped to become the standard rather than the exception, helping to better prepare students to become part of an IP, practice ready health workforce.

### References

1. Archibald, Douglas, David Trumpower, and Colla J. MacDonald. "Validation of the interprofessional collaborative competency attainment survey (ICCAS)." *Journal of Interprofessional Care* 28.6 (2014): 553-558.

# An interprofessional placement to support children's language and literacy development: A collaboration between speech pathologists and primary school teachers

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## **Introduction**

Given the overlap in language and literacy between speech pathologists' and teachers' scope of practice, these professionals share a commitment to collaborating to support children's language and literacy development. Within the Response to Teaching (Rtl) framework, there is a growing trend in Australia towards speech pathologists providing services using consultative and collaborative approaches, rather than traditional 1:1 withdrawal models. According to the World Health Organisation, the classroom should be the primary site for speech pathologists' intervention as this is a more realistic and naturalistic environment for children.

## **Methods**

This study explored speech pathologists,' final year speech pathology students' and teachers' perspectives and experiences of a school-based interprofessional clinical placement focussed on co-teaching of oral language skills and foundational literacy skills at Tier 1 and Tier 2 of the Rtl framework over an 8-week period and, the effectiveness of this collaboration in relation to children's language and literacy outcomes using data collected before and after the 8-week instructional period. Data collection involved individual interviews with speech pathologists, final year speech pathology students and teachers and, formal and informal measures of language and literacy administered before and after the 8-week instructional period with 62 children in reception and year one at two South Australian state primary schools.

## **Results**

Themes identified from interviews with speech pathologists, final year speech pathology students and teachers will be presented to understand the experiences and perspectives of this interprofessional collaboration. Pre- and post- assessment data will be presented to understand the effectiveness of this interprofessional collaboration on children's language and literacy outcomes.

## **Discussion**

The complexity of child development and supporting child development is not the responsibility of just one profession. The findings of this study highlight how speech pathologists and teachers can successfully collaborate for the benefit of all children in their care.

### “[We] need a seismic shift”: Disabled student perspectives on disability inclusion in U.S. medical education

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#### Introduction/Background

Students with disabilities have inequitable access to medical education, despite widespread attention to their inclusion.<sup>1</sup> While systemic barriers and their adverse effects on medical student performance are well-documented, few studies include disabled students' first-person accounts. Existing first-person accounts are limited by small samples and focus predominantly on students who used accommodations. This study bridged these gaps by analysing a national dataset of medical students with disabilities to understand their perceptions of disability inclusion in U.S. medical education.

#### Methods

We conducted a reflexive thematic analysis of 674 open-text responses by students with disabilities from the 2019 and 2020 Association of American Medical Colleges Year Two Questionnaire responding to the prompt: “Use the space below if you would like to share anything about your experiences regarding disability and medical school.” We coded data using an inductive semantic approach to develop and refine themes. We interpreted themes using the political/relational model of disability.<sup>2</sup>

#### Results/Evaluation

We identified key dimensions of the medical education system that influenced student experiences: program structure, processes, people, and culture. These dimensions informed the changes students perceived as possible to support their access to education and whether pursuing such change would be acceptable. In turn, students took action to navigate the system, using administrative, social, and internal mechanisms to manage disability.

#### Discussion

Key dimensions of medical school affect student experiences of and interactions with disability inclusion, demonstrating the relational production of disability. Findings confirm earlier studies on disability inclusion that suggest systemic change is necessary, while adding depth to understand how and why students do not pursue accommodations. Based on student accounts, the authors identify resources to help medical schools remedy deficits in their systems to improve their disability inclusion practice.

#### References

1. Meeks LM, Maraki I, Singh S, Curry RH. Global commitments to disability inclusion in health professions. *The Lancet*. 2020;395(10227):852-853. doi:10.1016/s0140-6736(20)30215-4
2. Kafer A. *Feminist, queer, crip*. Bloomington, IN: Indiana University Press; 2013.

## Exploring the Influence of Age as a Mediator in Gender Disparities: Personality Traits, Emotional Intelligence, and MMI

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This study investigates the mediating role of age in gender differences across personality traits, emotional intelligence, and performance in Multiple Mini Interviews (MMIs), specifically within the context of medical education admissions. Personality traits, emotional intelligence, and MMI outcomes play critical roles in identifying prospective medical students who possess the necessary attributes for success in the medical field. Our dataset comprises approximately 800 individuals who are prospective students at Bond University's medical program for the year 2024. Notably, Bond Medical School embraces both undergraduate and postgraduate applicants to its medicine program, making it an ideal setting for examining these dynamics.

The study will primarily analyse scores obtained from the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), the NEO Big Five Personality Inventory, and MMI evaluations. By employing Multivariate Analysis of Variance (MANOVA) and Multivariate Analysis of Covariance (MANCOVA) techniques, with age as a covariate, we aim to elucidate the nuanced relationships between gender, age, and these critical admission criteria. Data collection is ongoing and anticipated to be complete by mid-March 2024, providing a comprehensive snapshot of the cohort. Our findings hold the potential to offer valuable insights into the intricate interplay of gender, age, and key attributes required for medical education success. Furthermore, understanding the mediating influence of age on gender disparities in these domains could inform more equitable and effective admission practices in medical education.

This research contributes to the broader discourse on gender disparities in educational contexts and offers practical implications for optimizing medical admissions processes to foster diversity and inclusivity in the healthcare workforce.

## Successful practice placements for international students: Barriers and Facilitators

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### **Introduction/Background**

Education of international students to work as health professionals supports future workforce strategy in Australian health services. Practice placements play a critical role in preparing competent graduates. International students unfamiliar with Australian workplace cultures, and who may have English language challenges, face barriers to success. Biases and assumptions amongst professionals who provide placement learning opportunities can also impact international student success.

This presentation reports on a project undertaken at the Australian Catholic University, with the assistance of a Teaching Development Grant. The aim of the project was to identify barriers and facilitators to successful social work practice placements for international students, from the perspectives of students, placement supervisors and university educators.

### **Methods**

An exploratory, small sample, mixed method study entailed focus groups and interviews with Master of Social Work students, an online survey of social work placement educators, a focus group with social work academic staff and extraction of placement data from university records.

### **Results/Evaluation**

International students face a range of social, emotional, and economic challenges that impact their wellbeing and learning experiences. They also navigate uncertainties about university, workplace, and cultural expectations. Overall, students reported being well-supported in their placements, but some felt pre-judged about the types of tasks that would “suit them” or that they were “capable” of undertaking as international students. Both university and workplace educators experienced international students as more time consuming to support and requested more resources and guidance in how to better assist them.

### **Discussion**

What are the benefits to health services in having international students undertaking placements? How can health and educational institutions create learning environments that support international student success?

## From Flat to Fantastic: Forming a Picture Library of 3D Organs

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## From Flat to Fantastic: Forming a Picture Library of 3D Organs

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### Introduction/Background

Teaching human anatomy and pathology involves challenges in conveying complex structures. Traditional methods like textbooks have limitations in realism and interactivity. Typical 3D resources such as plastic specimens and cadavers have limited availability and accessibility. We created 3D images of normal organs and pathology specimens that are accessed online, photorealistic and interactive. We aimed to create an online library of human organs in 3D that can be viewed, manipulated, and explored from different perspectives and levels of detail on a standard screen.

### Methods

We used 3D photogrammetry with the Pathobin system(1) to capture overlapping photos from all angles of embalmed and plastinated organs. We then removed the background in Adobe Photoshop. Metashape software generated shape volumes, which were then covered with photorealistic surface detail. The resulting 3D images were exported as PDFs and hosted on a web platform. We used free software, Polycam to compare efficiency, image quality and shareability.

### Results/Evaluation

We established an efficient method of creating 3D images from preserved organs and wrote a protocol for future content creators to add to the library. We generated 30 images over 10 weeks. 3D image quality was superior using the Pathobin system, and viewers can open the PDF files using free Adobe Acrobat Reader, which supports 3D images. The Polycam software had the advantage of allowing users to share 3D files via a web link or as .mp4 videos.

### Discussion

Teachers can build these 3D organ images into clinically relevant teaching activities when linked with a clinical scenario, radiology and digital histopathology. Students will manipulate the 3D organ images using intuitive tools such as zooming, rotating, panning, measuring, labelling, and comparing. The accumulating 3D images are an equitable and accessible visual-spatial learning resource for all biomedical students.

### References

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## The experiences of neurodivergent students in health professions programs. A scoping review.

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<sup>1</sup>*Deakin University*

### **Introduction/Background**

Advancing equity and inclusion is a core goal across higher education, and in particular in health professions education. Neurodivergent students in clinical programs face particular challenges, for example those associated with clinical placement or professional identity formation. However, educators seeking to understand the experiences of neurodiverse students in health professions programs may have limited research available to guide their work. This review aims to identify and synthesize the current state of research in this area.

### **Methods**

A scoping review methodology was utilised to guide a search of four electronic databases and a snowball search of selected online literature mapping tools. The search considered primary data and analysis, reviews, commentaries and other relevant grey literature, to ensure breadth and depth. Our central question was: what is the current state of knowledge on the learning experience of neurodivergent students in healthcare education?

### **Results**

Over 2300 abstracts were screened, but less than 300 were included for full text review. Studies ranged in their primary focus on the neurodivergent individual, the learning environment, or the culture and practices. Studies framing neurodivergence as a disability located within the individual described students' experiences as learning difficulties requiring skills development and individual accommodations. In contrast, other studies identified students' experiences of bullying, alienation and expectations that they adapt to hide their neurodivergence, and recommended mentoring and system level changes to the learning environment and cultural practices to foster students' belonging.

### **Discussion**

There is limited research on the learning experiences of neurodivergent health professions students. However, emerging evidence suggests that neurodivergent students in clinical programs find that they are expected to conform to learning environments that are exclusionary and do not support their learning. Further evidence is required to inform recommendations to support students' sense of belonging, and prevent burnout and attrition.

## Medicine and Dentistry selection – examining five years of data of the UCAT ANZ test through an equity lens

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<sup>1</sup>Monash University, <sup>2</sup>Pearson VUE

### Introduction/Background

General concerns have been raised around equity and inclusion in selection into medicine and dentistry degrees. The UCAT ANZ is a computer-based aptitude test used as part of the selection process by a consortium of universities in Australia and New Zealand since 2019. The test has four cognitive and one Situational Judgment section (SJT), and is developed and delivered by Pearson VUE.

### Methods

Compiled by Pearson VUE psychometricians, UCAT ANZ is provided with an annual technical report regarding the test. It includes item statistics and performance on the overall test, including by subgroups<sup>1</sup>. We synthesised the results of five years of ANZ testing (2019-2023). In addition, a more detailed analysis was undertaken on the 2022 data on the top 35% of those candidates.

### Results/Evaluation

The analysis of data from UCAT ANZ yielded high levels of reliability across the years. Outcomes over time for subgroup variables (gender, age group, language spoken at home, parental education, rural status, and school type) were consistent. For the SJT, performance by subgroup was seen to be less variable across the subgroups, indicating equity concerns were minimised.

### Discussion

The application of UCAT ANZ scores occurs at an early stage in the selection process. With the knowledge of the consistency in trends in the data with respect to subgroups across the five-years, evidence is provided that the test is a reliable instrument for use in early selection processes, and that rational decisions can be made, helping to level the playing field for candidates applying for medicine/dentistry, as compared to subgroup variations occurring in other selection processes such as academic scores and/or interview styles<sup>2</sup>. Considerations are made towards addressing public misinformation about the test, including the promotion of the comprehensive test preparation materials on the UCAT ANZ website, which are available for all students to access at no cost.

### References

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# Perceptions of interactions between culturally and linguistic diverse allied health students and their clinical educators

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## Introduction

Research to date has largely documented the challenges culturally and linguistically diverse (CALD) allied health students experience on placement, however, little is understood about how CALD students and their clinical educators interact with each other on placement (Pearson et al., 2022) including how CALD students and their educators make sense of their interactions with each other during placement.

## Method

An innovative methodology was used in this study. Stimulated recall interviews were conducted with thirteen dyads (educator and student) based on video recordings and/or researcher observations of the educator and student interacting with each other during an occupational therapy or speech pathology placement. Interviews were completed with students and educators separately after each researcher visit. Participants also participated in semi-structured individual interviews post-placement.

Interview transcripts were analysed using interpretative phenomenological analysis (IPA) (Smith et al., 2022) to explore the students' and educators' perspectives on understanding their interactions with each other.

## Results

Preliminary analyses suggest several key themes that contribute to positive student/educator interactions, including: a good relationship between the educator and student; valuing opportunities for learning; and understanding of the student's attributes and CALD background.

Learning opportunities such as observing the educator in action and the educator facilitating discussion with the student to assist reflection and reasoning and acknowledging and valuing the student, including their cultural and linguistic background, were also found to be of importance to both students and educators.

## Discussion

The results from this study confirm the importance of the student/educator relationship along with the provision of essential learning/teaching opportunities. It is anticipated that results from this multi-perspective IPA study will further our understanding of interactions between students with CALD backgrounds and their educators, leading to improvements in clinical education practices, particularly through increased understanding of the relationship between the educator and CALD student.

## References

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### Mind your Digital Footprint: Exploring Nursing and Midwifery Students' Social Media Use and Awareness

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#### Introduction

Use of social media by health clinicians and students requires awareness of professional online behaviour. A scoping review was undertaken to explore nursing and midwifery students' use of social media and understanding of digital professionalism when engaging with social media platforms during their undergraduate programs of study.

#### Methods

A scoping review of five electronic databases (CINAHL, Embase, Google Scholar, Medline and Scopus) was undertaken. After removing duplicates, 920 titles and abstracts were screened for eligibility. Primary studies written in English that examined social media use and professionalism amongst nursing and midwifery students were included for full-text review. Of the 128 potentially eligible studies, fourteen studies were included after full-texts text review. All stages of article screening were undertaken independently by two reviewers. Qualitative inductive content analysis was used to analyse each of the included studies.

#### Results

Various countries were represented in the 14 included studies Saudi Arabia, Turkey, Canada, United Kingdom, Scotland, Caribbean Islands, United States of America, Australia and China. Two major themes and three subthemes emerged from the analysis, and categorised as follows: 1) Professional Boundaries with subthemes: Engagement, Identity Formation, and Private versus Public and 2) Responsibility and Accountability with subthemes: Institutional versus Individual Conduct, Ethical Standards and Social Media Guidelines.

#### Discussion

There is increasing participation in social media use by nursing and midwifery students as institutions are embedding educational content into these platforms. Platform types were dependent on availability within each country, trends at the time of publication, and student preference. There is lack of guidance globally on how nursing or midwifery students can appropriately use social media both in university and health settings. The impacts of both public and professional use of social media on students' professional lives must be addressed by universities to ensure students practice within the expectations of the profession.

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## Student's perspectives of the impact of short-term, international, immersive placements in underserved communities

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### Introduction

Short-term, immersive international placements are common and have been recognised for facilitating cultural learning, intercultural sensitivity, global-mindedness, and critical thinking. These outcomes are not guaranteed and the impact and inclusion of these experiences in an already comprehensive curriculum remain to be carefully evaluated.

This study explores the impact of 4-week international placements on professional and personal development (short-term and enduring) of participating final-year undergraduate and postgraduate dietetic and undergraduate nutrition students.

### Methods

Recent nutrition and dietetic graduates (n=8) of the program, implemented in underserved communities in the Philippines, Indonesia, and Vanuatu for four weeks during 2022-2021, were interviewed using semi-structured questions until saturation, followed by thematic analysis using a six-step process (Braun & Clarke 2006). Graduates were interviewed about their in-country experience and its impact on their professional practice, within 12-18 months of graduating. Findings were further analysed against the national competency standards for dietitians in Australia.

### Results

Participants expressed significant cultural awareness (appreciation of the strength of other cultures, stronger communitarian values of hosts), greater critical and systems thinking (about socio-economic determinants of health, systems-level thinking) and deeper capacity for empathy and compassion (emotional quotient development). When viewed against the national competency standards, participants did not understand how international placements from developed to developing countries can perpetuate colonisation principles and global-mindedness was not identified as a strong theme.

### Discussion

These findings suggest that immersive, international placements result in profound, transformational, and enduring learning that extends into participants' professional life, especially respect for cultural safety and the development of systems thinking. There is an alignment with accrediting professional peak body competencies for cultural competency, professional practice and collaborative practice with findings suggesting areas for strengthening the nutrition and dietetic curriculum include enhancing learning outcomes of global-mindedness thinking and decolonisation principles.

### Reference

Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology. Qualitative research in psychology*, 3(2), 77-101.

## The Schweitzer Effect: the fundamental relationship between experience and medical students' opinions on professional behaviours

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### **Background:**

We examined whether medical students' opinions on the acceptability of a behaviour were influenced by previously encountering a similar professionally challenging situation, assessed the magnitude of effect of 'experience' compared to other demographic factors which influence medical students' opinions, and evaluated whether opinions regarding some situations/behaviours were more susceptible to 'experience' bias?

### **Summary of work:**

Confidential, on-line survey for medical students distributed to Australian and New Zealand (AUS/NZ) medical schools. Students submitted de-identified demographic information, provided opinions on the acceptability of a wide range of student behaviours in professionally challenging situations, and whether they had encountered similar situations. Results: 3171 students participated from all 21 Aus/NZ medical schools (16% of registered students). Medical students reported encountering many of the professionally challenging situations, with varying opinions on what was acceptable behaviour. The most significant factor influencing acceptability towards a behaviour was whether the student reported encountering a similar situation. The professional dilemmas most significantly influenced by previous experience typically related to behaviours that students could witness in clinical environments, and often involved breaches of trust.

### **Discussion/Conclusions:**

Our results demonstrate the relationship between experience and medical students' opinions on professional behaviour- the 'Schweitzer effect'. When students encounter poor examples of professional behaviour, especially concerning trust breaches, it significantly influences their perception of the behaviour. These results highlight the importance of placing students in healthcare settings with positive professional role modelling/work cultures.

## Medical Board of Australia (MBA) professionalism and regulation education resources: pilot implementation in medical schools

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<sup>1</sup>Medical Board of Australia, <sup>2</sup>Australian Health Practitioner Regulatory Agency

### Introduction/Background

Medical regulation and professionalism issues arising in complaints from the public are not well understood by health practitioners. Greater engagement and education of medical students about the purpose, role and processes of regulation and relevance to practice would provide a unique perspective on professional issues. Medical education resources have been developed to focus learning on positive professionalism in a consistent manner nationally and clarify the role of the MBA.

### Methods

Four self-directed online modules were developed collaboratively for use across all jurisdictions, involving wide consultation with multiple stakeholders including students, a junior doctor reference group and the Medical Deans. Practitioner and community members of the MBA worked with Ahpra staff on content development, production and the communication and implementation strategy.

Case studies are central to the education package, prompting reflection and discussion in the interactive workshop for final year students being piloted in three states. The workshops are facilitated by practitioner and community representatives of the local state Medical Board, in conjunction with medical school educators, building further positive engagement between the MBA and emerging professionals.

### Results/Evaluation

Modules now available to students and educators online are: Protecting the public – the purpose of medical regulation; Replacing fear with facts – understanding notifications; Listening – what matters to patients; Navigating professional challenges. <https://www.medicalboard.gov.au/Registration/Educational-resources-for-medicalstudents.aspx> Student reported 'takeaway messages' in early pilot workshop evaluations indicate the package is achieving the aim of promoting reflection, dispelling myths and addressing concerns about regulation and professionalism issues in practice.

### Discussion

The MBA education modules can be embedded at pre/post-registration levels as a useful mechanism for framing and building positive professionalism learning, with transferability for other health professions feasible. Effective engagement and collaboration of all stakeholders across the health sector can address gaps in understanding of regulation and professionalism. Reducing fear and anxiety about complaints and regulation through this unique lens is impactful.

## Who are we now? Professional identity formation in Australian medical students and junior doctors

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<sup>1</sup>University Of Newcastle, <sup>2</sup>Bond University

### **Introduction/Background:**

Professional identity (PI) describes how we perceive ourselves and our place within our professional context, and how we then act and interact within that role. Developing a strong PI has been shown to have many benefits including increased resilience, lower workplace stress and burnout, better communication skills and better ability to engage in workplace culture as an agent of change. Yet, despite the known benefits of a robust PI, no curriculum components currently exist in Australian medical schools to support its formation in students. Rather, professional identity formation (PIF) is largely assumed to occur through clinical placements. The differences in the clinical experience between specialties and clinical environments, and those associated with varied clinical supervision and role-modelling, mean that students in those environments will also receive different messages of what being a medical professional means. Disruptions such as those which occurred during the Covid-19 pandemic add further variability and uncertainty to the process of PIF.

This project seeks to understand the processes of, and influence upon, the PIF of Australian medical students and early career doctors (ECDs), including consideration of disruptions associated with Covid-19.

### **Methods:**

This is a qualitative, focus-group-based descriptive study involving two cohorts of participants: medical students and ECDs.

### **Results:**

So far, 27 students have participated in focus groups, with recruitment ongoing. Strong emerging themes include the crucial impact of team dynamics, the importance of feeling useful, and the tension between the expectations of curriculum and the reality of the clinical environment.

### **Discussion:**

Understanding the experiences and needs of local students and ECDs regarding their PIF, as well as any barriers, is instrumental in developing educational tools to support this process in a way which addresses the needs of healthcare professionals. This is the first part of a PhD which will continue to explore this area, with promising themes already emerging.

## The Domains of Professionalism: Supporting professional identity formation of medical imaging professionals

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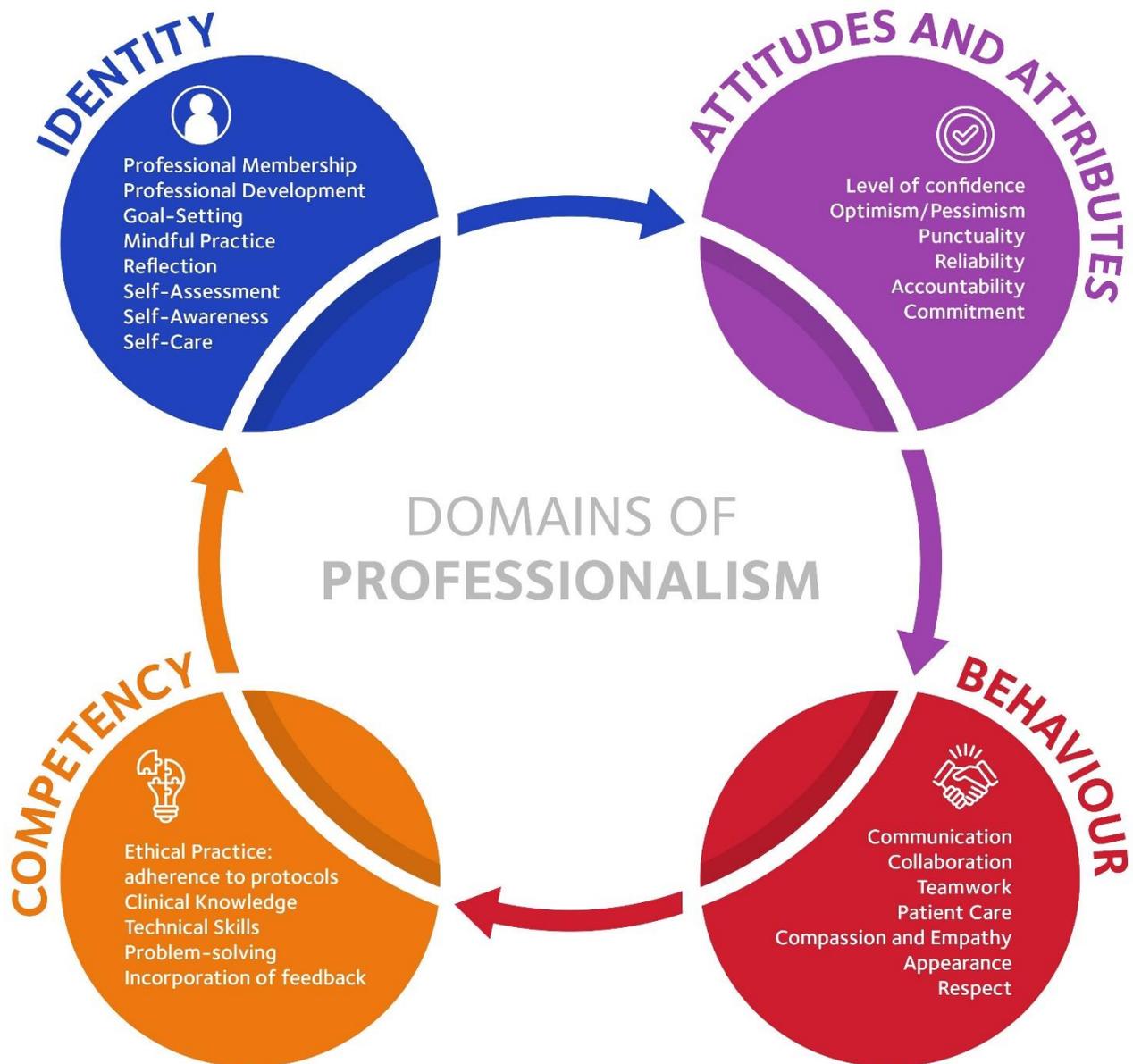
### **Introduction/Background**

In the last decade, the profession of vascular sonography in Australia has undergone a period of rapid growth which has seen an increase in the utilisation of this diagnostic testing method for the diagnosis of both acute and chronic vascular disease. In conjunction with the increase in the number of referrals, an increase in expectations from reporting physicians of sonographers has required a shift to a more defined professional role for the vascular sonographer in Australia. This changing landscape requires recently qualified sonographers to have a greater degree of career-readiness in order to be more proficient in managing the challenges of the clinical workplace earlier in their career than previously expected.

### **Discussion**

The challenge is however, that in comparison to other allied health professionals, particularly in comparison to radiographers, sonographers do not have a structured framework which supports the transition from being a student to a qualified professional. There is a lack of a professional development year, or defined preceptorship, and often newly qualified sonographers lack a sense of professional identity and a lack of connection to the wider profession of medical imaging.

Recognising and acknowledging this challenge led to the development of the 'Domains of Professionalism.' The Domains of Professionalism is a framework which outlines practical strategies that can be used to support the development of a professional identity, support well-being in the clinical workplace, and encourage professional engagement. The framework provides clear and tangible activities which encourage and motivate sonographers to become more confident in making the step from student to professional. The framework is not only applicable to newly qualified sonographers but can also be adapted to any allied health profession, to support professional identity formation, encourage continuing professional development and prevent the problems of burnout and disengagement.



## References

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## Why am I learning hand-washing when I want to be a speech pathologist?: A pilot study.

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### **Introduction/Background**

Providing first-year speech pathology students with authentic workplace practice experiences contributes to their professional identity formation and learning professional conduct. However, expanding demand for these experiences, coupled with increasing timelines for students to meet immunisation and child safety compliance requirements thwarts securing students these experiences. Simulation-based learning may be an alternative workplace practice experience. So, the curriculum and pedagogy of a first-year introductory subject about speech pathology was designed with an embedded simulated workplace experience (ESWE). The study aims were to (1) to explore the first-years' perspectives about the value of the ESWE, and (2) to pilot the measuring tool.

### **Methods**

The ESWE was fashioned as a routine Speech Pathology practice task—a beside oral-motor assessment—with a peer in a university simulation ward. The ESWE design included purposeful attention to professional conduct matters of communication, dress and appearance, and compliance with workplace protocols of infection control standards—including hand hygiene—and hazards. The study participants were those students who engaged in the ESWE and agreed to participate in the study. Students completed a customised survey of 34 Likert-scale questions prior to and after completing the ESWE.

### **Results/Evaluation**

The survey results will be presented.

### **Discussion**

If students perceive the ESWE as authentic and valuable, then it may be a suitable initial workplace learning experience and, as such may, replace an equivalent industry based experience, thereby reducing the pressure on industry support.

**Key words:** simulation, simulation-based learning, speech pathology, student learning, oral-motor assessment

ECOUTER: Awkward acronym; wonderful way to investigate the essential ingredients of high quality rural and remote health student placements

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### Introduction/Background

Rural populations experience reduced access to healthcare and poorer health outcomes than metropolitan populations. Student placements in rural locations are a commonly used strategy to build the rural health workforce. Understanding the essential ingredients of high-quality rural student placements would help to leverage this strategy (Quilliam et al., 2023). However, currently no standardised definition of quality in rural health student placements exists (Green et al., 2022). A key stakeholder voice is missing from the literature: the perspectives of university staff who have a role in designing, administering, delivering, and/or evaluating rural health student placements (Green et al., 2022). As a multi-university team of rural academics and health professionals from University Departments of Rural Health (UDRHs) in Australia, the authors set out to investigate what essential ingredients make up quality student placements in regional, rural, and remote Australia.

### Methods

Data collection is underway using a convergent mixed methods design with two components. The ECOUTER methodology has been employed in Component B, which aims to capture the important perspectives of geographically dispersed regional, rural, and remote university staff. ECOUTER (Employing ConceptUal schema for policy and Translation Engagement in Research) is from the French verb 'to listen' and comprises four iterative stages of data collection and analysis. It's an awkward acronym, albeit an innovative approach to capture practice wisdom, via iterative and interactive virtual mind-mapping processes.

### Results/Evaluation

Nineteen UDRHs were invited to participate as a case study. Ten UDRHs agreed to participate. Between 6 and 15 participants participated per UDRH (85 participants in total). The completion of ECOUTER stages will result in an overall mind map and conceptual schema report. This will include a summary of each identified concept regarding ingredients of high-quality health student placements.

### Discussion

This is the first Australian-wide study exploring features of high-quality rural health student placements. The findings will inform discussions with Australian government rural health workforce policymakers.

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## The cross-cultural transition journey from student to practitioner: a qualitative exploration of Australian-trained Asian dietitians' career trajectories

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### Introduction

Interest in the role of employability capitals in student-practitioner transitions is increasing.(1) However, little is known about transitioning experiences of Australian-trained international dietetic graduates and strategies to optimise work-readiness. Our study aimed to explore graduate's career narratives and identify employability capitals that enabled successful transitions to work.

### Methods

A qualitative interpretive approach was employed via a cultural lens. Eighteen participants from five Asian countries who had graduated from an Australian university within three to fifteen years, with work experience in Australia or in their respective home countries, took part in in-depth interviews. Thematic analysis was performed, guided by the graduate capitals based approach.(2)

### Results

Transitions were dynamic and nonlinear: 1) Upon graduation, participants felt ambivalent about their decision to either stay in Australia or return home, influenced by graduate visa restrictions, and individual perceptions of their ability to mobilise cultural strengths to gain employment. 2) To get a foot in the door, participants challenged the Asian 'life-scripts', embraced uncertainty and utilised social networks to increase employment opportunities. 3) Regardless of which country they worked, graduates reported struggling with their cross-cultural identities in the workplace. 4) Eventually, these graduates appreciated their ethnic capital, thrived in their work and extended a helping hand to other cross-cultural practitioners.

### Discussion

It is paramount for dietetic educators/practitioners to support students' social and cultural capital development, creating connections with local communities and familiarity with national and professional culture. Facilitating an environment that allows international students to exercise their ethnic capital may also assist with professional identity development as cross-cultural dietitians. Acknowledging the strengths and needs of international dietetic students and implementing initiatives to support employability capital development, will benefit international dietetic graduates and the communities they may serve.

### Reference

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## Barriers before entry: a policy review of guidance provided to medical school applicants with a disability

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### Introduction/Background

Advancing diversity, equity of access and inclusion is an important goal in health professions education. In support of access for students with disability, the Medical Deans of Australia and New Zealand (MDANZ), the professional entry-level medical education peak body, in 2021 released a guidance document on [Inclusive Medical Education](#). This document was intended to provide schools and potential applicants with a framework for discussing the requirements of study and professional practice. This study explored how medical schools have responded to this guidance, in terms of information provided to potential applicants, and how this is framed.

### Methods

A document review and discourse analysis of the public-facing webpages of 24 Australian and New Zealand medical schools was conducted. This involved analysis of the policies, guidelines and legislature referenced, and the language used to guide potential applicants and/or current students.

### Results/Evaluation

Websites varied significantly in the level of detail, structure, clarity and framing of information provided to students with disability. Some schools directed students to the MDANZ guidance document, others referenced their own Inherent Requirements documents. Some websites clearly displayed relevant information and linked to entrance requirements. Others were less accessible or located elsewhere on the University site which applicants are less likely to explore. Critically, many websites did not clearly explain how applicants with disability could explore options to manage study and practice requirements do prior to application. The language used to frame access for applicants is often formal, deficit based and unclear.

### Discussion

The variation and lack of information about inclusive education practices on medical schools' public facing webpages is likely to impact on applicants' decisions to enrol in medical courses. For equity of access, it is important that schools clearly display their requirements or expectations and provide information on appropriate next steps based on consensus guidelines of representative bodies.

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Issakhany D, Crampton P. Inclusive medical education for students with disabilities: a new guidance document from Medical Deans Australia and New Zealand. *N Z Med J.* 2023 May 12;136(1575):65-71. PMID: 37167942.

## Experiences of rural and metropolitan background applicants in preparing for and completing a regionally focused multiple mini-interview

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### Introduction/Background

*Medical students of rural origin are more likely to work rurally once qualified. Therefore, medical programs with a rural mission often incorporate multiple mini-interview (MMI) scenarios tailored to assess rural interest (Henry et al., 2009). However, limited evidence is available explaining why rural applicants often underperform on MMIs (Rees et al., 2016) and the impact of regionally focused MMIs on selecting rural applicants remains unclear. This study investigates how rural and metropolitan applicants prepare for and perceive MMIs in the context of admission to a regional medical pathway.*

### Methods

*A mixed-methods survey was administered to provisional entry regional pathway medical school applicants who had completed an MMI. The survey was completed (n=111, 38% response rate) before any admission offers were released.*

### Results/Evaluation

*Rural applicants spent less time and money preparing for the MMI and felt less prepared ( $P < 0.05$ ). However, time and money spent, and resources used to prepare were not associated with feeling more prepared (all  $P > 0.05$ ). Rural and metropolitan applicants generally utilized similar resources, except for more rural applicants accessing a family/community member ( $P = 0.026$ ). Respondents mostly felt that the MMI process aligned with their expectations (83%), is fair (64%), and helps a rural program select the most suitable applicants (61%). Rural applicants generally felt that they had an advantage over other applicants (61%) while most metropolitan applicants did not (23%;  $P = 0.002$ ).*

### Discussion

*While applicants to a regional medical pathway generally support the MMI process, the study suggests that understanding the format and requirements is valuable for preparation. Substantial time and financial investments in preparation did not enhance the sense of preparedness among applicants. MMI scenarios which include a regional focus were perceived to advantage rural applicants; however, objective data are needed to determine the impact of regionally focused MMI scenarios on the performance of rural and metropolitan applicants.*

### References

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# The use of gender-inclusive language in pre-registration medical and midwifery curricula in Australia, New Zealand and the United Kingdom

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## **Introduction/Background**

The use of gender-inclusive language can help create a welcoming and gender-affirming environment for transgender and gender-diverse (TGD) individuals. This population face unique challenges in accessing healthcare, especially obstetric and gynaecological care. The overarching aim of this narrative review was to assess the current use of gender-inclusive language in pre-registration medical and midwifery curricula in Australia, New Zealand and the United Kingdom, and discuss existing barriers to its effective use.

## **Methods**

Electronic databases (Medline, SCOPUS, ERIC and CINAHL) were searched for studies using keywords relating to gender inclusivity and transgender identity, medical education and midwifery education in May and June 2023. Papers must have been published in English in the last 10 years and relate to the delivery of a pre-registration medical or midwifery curriculum in the listed jurisdictions.

## **Results/Evaluation**

Of 303 identified records, 9 studies met the inclusion criteria. 5 of these papers pertained to medical education and 4 pertained to midwifery education. No evidence of implementation of gender-inclusive language in an entire medical or midwifery curriculum was identified, and there were few published examples of gender-inclusive language use in these curricula.

## **Discussion**

The identified barriers to the effective use of gender-inclusive language were: i) discomfort using gender-inclusive language among academics, (ii) inadequate support for academics and (iii) lack of integration of gender-inclusive language into the curricula. These barriers may be addressed through a more systematic and standardised approach to gender-inclusive language and the development of guidelines on gender-inclusive language to be used in academic and clinical settings. Such guidelines would need to be created based on additional research into the language preferences of TGD patients accessing obstetric and gynaecological care.

## Engaging students as partners to enhance equity in global mobility experiences.

**Lamaro Haintz G**<sup>1</sup>, McKenzie H<sup>2</sup>, George N<sup>2</sup>, Taylor P<sup>2</sup>, Samat N<sup>3</sup>, Arambewela-Colley N<sup>4</sup>, Lawson J<sup>2</sup>, Green A<sup>1</sup>, Prezioso D<sup>5</sup>, Barr R<sup>6</sup>, Swan L<sup>7</sup>, Hanna L<sup>8</sup>

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### Introduction/Background

Global mobility has an important role in students' study experiences and future professional experiences. Students who undertake global mobility during their degree are more likely to achieve higher grades, graduate employment and higher graduate salaries compared to those not do not. However, students from under-represented groups in universities are also under-represented in global mobility experiences, thus perpetuating inequities in educational experiences and outcomes. This research aimed to involve students-as-partners to enhance equity in access to, and participation in, global mobility opportunities for Deakin students from under-represented groups.

### Methods

Participatory action and ethnographic approaches were used. Four student-partners collaborated with academic and professional staff in the research design and conduct. Student-partners conducted ten semi-structured interviews with students from under-represented groups to explore their experiences and perspectives of global mobility, including barriers, facilitators, and future opportunities. Interviews were inductively thematically analysed.

### Results/Evaluation

Three key themes emerged: 1) terminology used; 2) types/nature of opportunities; and 3) marketing and communication of opportunities. Participants highlighted university terminology for global mobility posed a barrier to engagement. Students wanted more diverse global mobility opportunities to better accommodate their unique needs, including varying lengths of time, format and locations. Finally, students highlighted the need for effective and timely marketing and communication about global mobility opportunities to support them to balance their study and personal contexts and needs.

### Discussion

The research findings were used to co-create resources to support organisational practice and development of future global mobility opportunities which are diverse and inclusive for students from under-represented groups. Engaging students-as-partners in the research process alongside academic and professional staff enabled student skill development, capacity building and empowerment; and provided nuanced insights and enhanced the student 'voice' in data analysis, interpretation, and the co-creation of authentic resources to enhance opportunities for under-represented groups to engage in global mobility.

### Sending them out blind: Are dietetic graduates being adequately trained for work in private practice?

**Blair M**<sup>1</sup>, Gibson S<sup>1</sup>, Mitchell L<sup>2</sup>, Rees C<sup>3</sup>, Monrouxe L<sup>4</sup>, Ottrey E<sup>1</sup>, Palermo C<sup>1</sup>

<sup>1</sup>Monash University, <sup>2</sup>Griffith University, <sup>3</sup>The University of Newcastle, <sup>4</sup>The University of Sydney

#### **Introduction:**

Private practice is a common employment setting for allied health graduates in Australia but information on dietetic graduate preparedness for this setting is scant. Studies are yet to be conducted exploring graduates' perspectives longitudinally. This study aimed to explore dietetic graduates' experiences of preparedness for private practice employment longitudinally.

#### **Methods:**

A secondary data analysis was conducted on qualitative interview and longitudinal audio diary data exploring health professional graduates' preparedness across their final year student to new graduate transitions<sup>1,2</sup>. Of the four health professions included in the original dataset (dietetics, medicine, nursing, pharmacy), only dietetic graduates discussed employment in private practice. Twelve hours of audio data from nine dietetic graduates were thematically analysed using the framework method.

#### **Results:**

Graduates reported feeling unprepared for employment in private practice, specifically citing a lack of exposure to this setting during their training. They indicated that they were challenged by: 1) a lack of counselling skills to maintain long-term client relationships, and a lack of business skills; 2) difficulty making a viable income due to low rates of pay and reliance on their ability to build a client base over time; and 3) needing additional support to navigate the challenges they faced.

#### **Discussion:**

Preparing dietetic graduates for private practice is an educational priority for the dietetic profession. Creating opportunities for students to experience placements in the private practice setting may enhance preparedness. Learning from education models used in other allied health professions, such as physiotherapy which incorporate private practice placements, may help to enhance training practices. The current lack of preparedness for practice in this setting is likely to lead to high turnover of inexperienced practitioners, potentially resulting in poorer health outcomes for the clients they serve.

#### **References:**

1. Ottrey, E., Rees, C. E., Kemp, C., Brock, T. P., Leech, M., Lyons, K., Monrouxe, L. V., Morphet, J., & Palermo, C. (2021). Exploring health care graduates' conceptualisations of preparedness for practice: A longitudinal qualitative research study. *Medical Education*, 55(9), 1078–1090. <https://doi.org/10.1111/medu.14475>
2. Rees, C. E., Ottrey, E., Kemp, C., Brock, T. P., Leech, M., Lyons, K., Monrouxe, L. V., Morphet, J., & Palermo, C. (2022). Understanding Health Care Graduates' Conceptualizations of Transitions: A Longitudinal Qualitative Research Study. *Academic Medicine*, 97(7), 1049–1056. <https://doi.org/10.1097/ACM.0000000000004554>

## Subject subjectiveness: What are the natural criteria subject matter experts use when making decisions about what should be included in the curriculum?

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<sup>1</sup>Flinders University, College of Medicine and Public Health, Rural & Remote Health South Australia, <sup>2</sup>Flinders University, College of Medicine and Public Health

### Introduction/Background

In the process of transitioning from a discipline-based to a more generalist medical curriculum Flinders University's Medical Program Curriculum Oversight Group (COG) used a consensus-reaching workshop process called Nominal Group Technique (NGT), where subject-matter experts used their expert, subjective judgement to determine what discipline content should be included in the new curriculum. We wanted to understand the NGT process from an experiential perspective, because we hold that the experience of undertaking the consensus process is as important as the outcome of the process. While the literature abounds with examples of NGT-derived consensus outcomes and best practice implementation advice, it was difficult to find reports of the qualitative experience of participants in reaching consensus. Consequently we initiated a small research project to identify and understand 1) the actual decision-making steps the SMEs took in their NGT process; 2) their opinions on the process; and 3) and the 'natural' subjective criteria they drew on when making decisions.

### Methods

Participants were invited to share their NGT experiences via an online survey and/or a one-on-one one-hour face-to-face semi-structured reflective interview, in which SMEs were prompted to identify the decision-making steps and articulate their reasons behind their thinking at each step. Following de-identification, data was thematically analysed to develop a synthesis framework of the consensus-making process used across the working groups and a typology of the natural criteria used by the SMEs.

### Results/Evaluation

We report on the value and structure of the NGT process itself, including variations in its application, and the natural criteria SMEs used during consensus-reaching.

### Discussion

Results from the study will be used to support the curriculum change processes at Flinders going forward; they also have implications for curriculum change processes in health professions education more broadly – especially, where it is important to understand the experience of SMEs in change processes.

## Improving sleep education in postgraduate psychology programs: Evaluating the state-wide roll-out of a sleep education workshop for trainee psychologists using the RE-AIM framework.

**Meaklim H**<sup>1</sup>, Meltzer L<sup>2</sup>, Rehm I<sup>3</sup>, Junge M<sup>4</sup>, Monfries M<sup>5</sup>, Kennedy G<sup>6</sup>, Bucks R<sup>7</sup>, Graco M<sup>1</sup>, Jackson M<sup>8</sup>

<sup>1</sup>The University Of Melbourne, <sup>2</sup>National Jewish Health, <sup>3</sup>Victoria University, <sup>4</sup>Sleep Health Foundation, <sup>5</sup>Latrobe University, <sup>6</sup>Federation University, <sup>7</sup>University of Western Australia, <sup>8</sup>Monash University

### **Background:**

Little education is provided to psychologists on managing sleep problems in clinical practice. However, untreated sleep problems can worsen mental health outcomes. To address this training need, we evaluated the state-wide roll-out of a validated sleep education workshop within postgraduate psychology programs, using the RE-AIM evaluation framework.

### **Methods:**

A non-randomized waitlist control design evaluated the roll-out of the Sleep Psychology Workshop (a six-hour live online workshop) to postgraduate psychology programs in Victoria. We measured trainee psychologists' sleep knowledge, attitudes, and practice at pre- and post-workshop, and at 12-months post-completion. The trial was guided by the RE-AIM framework to measure the reach, effectiveness, adoption, implementation, and maintenance of the sleep workshop.

### **Results:**

The Sleep Psychology Workshop was adopted by 70% of postgraduate psychology programs in Victoria, with a total of 313 trainees attending the workshop. Trainees who participated in the workshop demonstrated significant improvements in their sleep knowledge and skills, compared to the waitlist control (all  $p < .001$ ). Overall, implementation feedback was positive, with 96% of trainees rating the workshop as very good-to-excellent. At 12 months post-workshop, 83% of trainees had used some of the knowledge and skills learned in the workshop in their clinical practice. However, students reported more comfort using basic sleep knowledge/skills (e.g., psychoeducation) than more technical skills (e.g., taking a sleep history)

### **Discussion.**

The Sleep Psychology Workshop was effective at improving trainees' basic sleep knowledge and skills, with some gains maintained at 12 months. The RE-AIM framework allowed us to go beyond simple effectiveness data and identified a strong adoption rate of the workshop by postgraduate psychology programs. Our data suggests a strong demand for sleep education within postgraduate psychology education.

### **Conclusions.**

We are now collaborating with the Australasian Sleep Association (the peak national body for our field) to drive this dissemination initiative forward around Australia.

## Impact of art and reflective practice on medical education in the emergency department

**Kovach N**<sup>1</sup> Dix S<sup>1</sup>, Brand B<sup>1</sup>, Siddiqui Z<sup>2</sup>, Celenza A<sup>3</sup>, Fatovich D<sup>4,5</sup> and Innes K<sup>1</sup>

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<sup>4</sup>Royal PerthHospital, <sup>5</sup>Harry Perkins Institute of Medical Research

### Introduction/Background

Heightened interest surrounds the incorporation of arts-based pedagogy in medical education (ME). Art, with its diverse forms of expression, serves as a means to convey precise meanings and emotions, prompting critical reflection. The aim was to investigate the efficacy of incorporating art and reflective practice within ME, specifically within the context of the Emergency Department [ED].

### Methods

A methodological study with a longitudinal design was employed. Prior to their initial and following their concluding clinical practicum, medical students were exposed to a 3-minute film titled 'The Art of the ED.' Their written reflections centred on evolving perceptions of the film throughout their ME program. Data were thematically analysed.

### Results/Evaluation

Twenty-five written reflections were categorised into five themes, including 'professional growth,' which explored personal and professional development throughout the medical program. Other themes included recognising 'patients as people' and gaining insights into the purpose, structure and function of an Emergency Department through 'the reality of ED.' The findings highlight that the incorporation of arts-based pedagogy effectively enables medical students to engage in meaningful critical reflection and foster a sense of professionalism. Contemplating the film expanded their outlook to explore new possibilities, prompting them to confront implicit biases surrounding the ED and encouraging the development of their professional identity.

### Discussion

The integration of art and reflection in ME enhances reflective learning, fostering transformative change and the development of the core doctoring values of service, empathy and respect. Incorporating more arts-based pedagogy in ME promotes reflective exploration of the psychosocial context of health and illness, supporting the delivery of holistic models of care in their role as doctors.

## Challenging with Chilli's: Scaffolding learner-led task difficulty into nursing clinical skills

**Caulfield R**<sup>1,2</sup>, Oliver N<sup>1</sup>

<sup>1</sup>University Of Canberra, <sup>2</sup>Canberra Health Services

### Introduction/Background

Andragogy is underpinned by self-directed learning, problem orientation and intrinsic motivation (amongst others) with effective educators recognising and engaging learners at individual skill and knowledge level. This became challenging for the researchers as they engaged a large (>200) cohort of nursing students experiencing significant variance in proficiency. Interweaving aspects of challenge point (Guadagnoli et al., 2012), Vygotsky's zone of proximal development (Coombs, 2018) and Bruner's scaffolding theories, the researchers designed and implemented a unique 'choose your own adventure' for clinical nursing skill education.

### Methods

Educators mapped the unit's clinical cases and skills with students required baseline performance to ensure safety and competency. Subsequently, a three-tier approach to each case study was developed with the first tier representing the foundational or baseline requirement of students for safe competency. The second and third tiers added additional levels of cognitive and/or psychomotor complexity to the clinical skill sequentially. For additional engagement, researchers pirated the common food symbolism of chilli - one chilli for mild, two chilli's for spicy, three chilli's for spiciest. On introduction, students were reassured that the expected performance level for the unit was one chilli but that the other options were available for extension learning and challenge.

### Results/Evaluation

Student engagement was extremely positive including emails, University survey data and assessment submissions demonstrating overwhelming enthusiasm. During the week where chilli's was not used, students made comments about their displeasure of its absence. While students noted chilli's increased confidence, it was also anecdotally noted by faculty and facilitators that leadership, peer teaching and mentorship was displayed during the chilli program.

### Discussion

Designed as an interactive, learner led initiative underpinned by andragogical theories, chilli challenge was successfully piloted to more than 200 students. Research into the introduction of this teaching strategy would be useful to determine its feasibility and scalability beyond the clinical skills classroom.

### References

- Coombs, N. M. (2018). Educational scaffolding: Back to basics for nursing education in the 21st century. In (Vol. 68, pp. 198-200): Elsevier.
- Guadagnoli, M., Morin, M.-P., & Dubrowski, A. (2012). The application of the challenge point framework in medical education. *Medical Education*, 46(5), 447-453.  
<https://doi.org/https://doi.org/10.1111/j.1365-2923.2011.04210.x>

## Cultivating innovative partnerships between a health network and University to create better learning experiences for early career nurses.

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<sup>1</sup>Central Adelaide Local Health Network, <sup>2</sup>Adelaide Nursing School, University of Adelaide

### **Introduction/Background**

An informal collaboration between the Central Adelaide Local Health Network (CALHN) Early Career Transition Program (ECTP) team and the Adelaide Nursing School (ANS) at the University of Adelaide to enhance the delivery of simulation activities for early career nurses was established.

Previous evaluations identified the need to better prepare nurses for management of clinical deterioration. The ECTP team partnered with the ANS to review existing programs and identify changes to teaching activities that would better prepare nurses.

### **Methods**

The ANS provided introductory sessions focussed on learning theory. Staff from both teams observed simulation activities at the University and hospital. Based on these observations, changes to simulation activities were made to create a better learning experience.

The ECTP simulation activities now include structured pre-brief and de-brief activities. Simulated patients (SPs) were incorporated into simulations. SPs increase immersion for the nurses with actors, playing the role of patients, increasing realism and providing feedback during de-brief sessions.

### **Evaluation**

ECTP staff report an increase in their confidence in managing teaching sessions and feel better prepared to deliver high quality teaching experiences that prepare nurses for real world scenarios. Feedback demonstrates an increase in satisfaction with the teaching activities. This program has fostered dynamic interdisciplinary opportunities for the use of SPs in clinical deterioration scenarios for both nursing, allied health and medical graduates.

### **Discussion**

A range of benefits were noted and we recommend others consider this concept in curriculum design and delivery across disciplines. In a separate project, the Health Simulation team have developed a model for how this collaboration could be implemented (Davies et al, 2023).

Benefits were experienced by the ECTP program and the ANS where elements of the curriculum for final year nursing students were refined to better align with their needs during transition to practice.

### **Reference**

Davies E, Montagu A, Brazil V. 2023, Recommendations for embedding simulation in health services. *Advances in Simulation*. Vol. 8. No. 1, pp. 23

### Building a clinically relevant digital resource for undergraduate students to learn about medical imaging

**McHaffie A**<sup>1,2</sup>, Anakin M<sup>3</sup>

<sup>1</sup>University Of Otago Christchurch, <sup>2</sup>Te Whatu Ora Waitaha Canterbury, <sup>3</sup>University of Sydney

#### **Introduction/Background**

When medical imaging is integrated into learning resources and course work across an undergraduate program, it may lose its visibility as a distinct learning area despite its crucial role in practice. A medical imaging curriculum may be incoherently experienced by educators and students as learning opportunities that occur 'everywhere and nowhere'<sup>1</sup>. Students report they would like access to resources and interactive learning opportunities that address clear learning objectives with clinical relevance. Radiologists may have limited opportunities to actively teach students. The aim of this initiative was to design and evaluate a set of digital learning packages to help address these challenges.

#### **Methods**

The Theory of Practice Architectures, explicit learning objectives, and digital resources available online were used by a radiologist collaborating with a junior doctor, an e-learning specialist, and an educational researcher to construct a digital package for fourth-year medical students in an undergraduate medical programme in New Zealand. The package emphasised skill development in image interpretation, interacting with the radiology department, and integrating medical imaging into clinical practice. It featured links to online tutorials, text-based information, and interactive activities interpreting images, building foundational knowledge, and solving clinical problems.

#### **Evaluation**

The package was piloted with fourth-year medical students (n = 24), who gave feedback in a focus group discussion. Students were comfortable working through digital materials independently, and appreciated clinically authentic content and presentation (for example scrollable images). Suggestions were made to include more detailed and immediate feedback, present text in shorter sections and provide internal links for referencing.

#### **Discussion**

Our resource was enhanced following students highlighting appreciation for comprehensive feedback and segmented text. Internal referencing and creation of an image bank are planned future developments. A digital resource may be an efficient and agreeable means of addressing challenges concerning consistency and visibility of material in an integrated curriculum.

#### **References**

1 Ma R, McHaffie A, Subramaniam R, Anakin M: Student and Educator Experiences of an Integrated Medical Imaging Curriculum. *Academic Radiology* 2022; 30(4):765-770.

## An innovative transition to practice program in mental health: a co-design project

**Courtney J**<sup>1</sup>, Hoole B<sup>1</sup>, Glass S<sup>1</sup>, Foster A<sup>1,2,3</sup>

<sup>1</sup>Monash Health, <sup>2</sup>Monash University, <sup>3</sup>La Trobe University

### Introduction/Background

Transitioning into a new practice area can be met with emotional upheaval and requires supportive measures to facilitate a learner to become embedded in the new environment (Cleary et al., 2009). There is a paucity of literature describing the learning needs of experienced allied health professionals entering mental health and this project sought to co-design a transition to practice program. The program would be rooted in contemporary pedagogy synthesised and co-created with the views of mental health practitioners.

### Methods

Participants were either (a) AHPs who had transitioned to mental health from another setting; or (b) mental health operation leads, recruited from a tertiary public health network using purposive sampling. A co-design workshop method allowed for discussion of the content needs of a transition program. The audio was transcribed verbatim and analysed using inductive content analysis (Vears & Gillam, 2022).

### Results/Evaluation

22 participants co-created a model for a supportive, transition to practice program. Essential pillars and stakeholders were identified and used to inform the curriculum design. Participants described and prioritised 4 core competencies and 8 capabilities required to practice in mental health and engaging learning activities were matched with these.

### Discussion

Through blended learning, authentic case scenarios and immersive experiences it is anticipated transitioning AHPs will achieve advanced skills and competencies required to practice in mental health. The program emphasises interdisciplinary collaboration and connection to foster a holistic understanding of the diverse practice needs in mental health. As the project had a small sample size and not all allied health professions were recruited, some needs may not have been captured. This was mitigated by referencing literature in transition programs during program design. In future, an evaluation of the implementation of the program will review its effectiveness to become a competent mental health AHP.

### References

Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.

Cleary, M., Matheson, S., & Happell, B. (2009). Evaluation of a transition to practice programme for mental health nursing. *Journal of Advanced Nursing*, 65(4), 844-850. <https://doi.org/https://doi.org/10.1111/j.1365-2648.2008.04943.x>

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<https://search.informit.org/doi/full/10.3316/informit.455663644555599>

## Conflict in healthcare: What are our students experiencing, and how ready do they feel to manage it? A preliminary analysis

**Jutsum K**<sup>1</sup>, Ngo H<sup>1</sup>, Wilcox H<sup>1</sup>, Evans K<sup>1</sup>

<sup>1</sup>*University Of Western Australia*

### **Introduction**

Conflict is a problem in healthcare settings. It is a key contributor to stress and burnout amongst clinicians, an effect particularly pronounced amongst the younger population. Furthermore, it negatively impacts productivity and patient safety. Limited research has studied the impact of workplace conflict on medical students. This study aimed to explore medical students' experiences of conflict on placement, and their current preparedness, to inform future curriculum development.

### **Methods**

Final-year medical students at the University of Western Australia were invited to complete an online survey. They described any conflict(s) they had experienced on placement and their impact through fixed-response and open-ended questions. Skills and confidence in managing workplace-based conflict were self-scored on 5-point Likert scales; emotional intelligence (EI), empathy, and conflict style were assessed using standardised questionnaires. Descriptive statistics were used to explore the data.

### **Results**

Seventy-two students (37% of the cohort) completed the survey, with 76% reporting they had witnessed and/or experienced conflict on placement within the last year (83% of these conflicts were interprofessional). Participants felt that conflict negatively impacted learning, wellbeing, and choice of future career. Overall, 85% of participants felt that they were 'Not at all skilled', 'Could be better', or 'Were neither skilled nor unskilled' at managing conflict. In terms of confidence, 92% of participants scored themselves in the same three categories. Average EI and empathy scores were similar to other student populations. The most common conflict styles amongst the cohort were 'Accommodating' and 'Avoiding'.

### **Discussion**

There is a high prevalence of encountering conflict on placement among medical students, to detrimental effect. Whilst empathy and EI scores align with expectations (suggesting broad preparedness), the participants lacked skills and confidence specific to managing conflict. These results underline the importance of integrating conflict management training into medical school curriculum.

## Designing and Creating a Different Medical School: NewMed

**Oancea I**<sup>1</sup>, Tobin S<sup>1,2</sup>

<sup>1</sup>*NewMedical Education Pty Ltd*, <sup>2</sup>*Western Sydney University*

### Introduction/Background

Medical education has evolved with an increasing focus on early clinical immersion and skills acquisition, also using innovative pedagogies and teaching tools.

We represent a potential new medical school for Australia. Points of difference, distributed learning, bespoke technology and programmatic technology are being employed. We share thoughts on program design that seeks to utilise “what works” complemented by innovation<sup>1,2</sup>.

### Methods

NewMed was established in early 2023, beginning with dialogue with Tertiary Education Quality and Standards Agency (TEQSA) and Australian Medical Council (AMC) re published standards for university colleges and medical schools. While staff were assembled to address these important regulations, early program design emerged with primary/general practice prominence combined with potentially class-leading technology. This curriculum approach aims to culture innovation without breaking the traditional boundaries. Components have been assembled and program design completed.

### Results/Evaluation

The innovative approach spans from new curriculum structure to use of technological tools for teaching, learning and assessment. Using up-to-date assessment technologies including in the moment work-based assessment (WBAs), as well as eportfolio with dynamic monitoring, student progress will be regularly monitored and support provided, with coaching and mentorship. Whilst this data will inform the program by year/stage, the utility of this for learning will be evaluated.

### Discussion

This start-up medical school to be (subject to registration/accreditation) seeks to make use of “the best” and will be set-up to be contemporary going forward. The leadership and academic team have continually asked themselves “how do these approaches rate?” and “what is the evidence?” We present this to ask you “how would you do this at your medical school?”

### References

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2. Lawson KA, Chew M, Van Der Weyden MB. The new Australian medical schools: daring to be different. *Med J Aust*. 2004 Dec 6-20;181(11-12):662-6. doi: 10.5694/j.1326-5377.2004.tb06514.x. PMID: 15588204.

## Aligning curriculum to key clinical readiness themes

**Li L**<sup>1</sup>, Calo M<sup>1</sup>

<sup>1</sup>*La Trobe University*

### **Introduction/Background:**

Universities align their curriculum with accrediting bodies' competencies, but often lack specific details crucial for students' clinical readiness. Physiotherapy students' clinical performance in Australia is assessed through the Assessment of Physiotherapy Practice (APP) tool. This presentation outlines the development of a content map aligned with APP themes, informing curriculum design for enhanced student placement readiness at an Australian physiotherapy school.

### **Methods:**

We mapped the APP tool to a two-year Master of Physiotherapy program. Identifying student needs through qualitative data, we addressed gaps in clinical preparedness from past graduates, clinical supervisors, and program instructors. Objectives were established to craft a curriculum fostering placement readiness. Themes were mapped collaboratively, and with an education designer's guidance, a content map for the first year of the GEM physiotherapy program was developed. This map informed authentic learning experiences, ensuring vertical alignment and scaffolded learning and assessment throughout the curriculum.

### **Results/Evaluation:**

The program received accreditation from relevant accrediting bodies in 2023, and the inaugural rollout is scheduled for 2024. A comprehensive collection of qualitative and quantitative data from clinical supervisors, students, and academics throughout 2024-2025 will assess the impact of the curriculum design on students' clinical readiness.

### **Discussion:**

A meticulously structured curriculum, guided by essential clinical readiness themes such as communication and professionalism, fosters effective collaboration with clinical partners, thereby creating authentic learning experiences. The development of content maps centered around these critical themes is valuable yet time-consuming. Challenges encountered during this process will be explored, offering insights to support others planning a similar journey.

## Is Climate Change included in entry-level Physiotherapy education in Australia?

**McPherson K<sup>1</sup>**

<sup>1</sup>*Charles Sturt University*

### **Background**

Climate change is impacting human lives and health in a variety of ways. Physiotherapy practice may be influenced by the effects of climate change, including adapting to extreme weather conditions, managing increased injuries within the community. As physiotherapy is part of the healthcare sector it is important to ensure the whole sector is financially and environmentally responsible. There is very little in the research to describe climate change or environmental sustainability within physiotherapy curriculum or the knowledge and attitudes of entry-level physiotherapy students and their academic teaching staff.

### **Methods**

Two surveys were developed to explore physiotherapy student's and physiotherapy teaching staff's attitudes and knowledge towards the climate change. The questions were based on three previous surveys for nursing and health professionals and were distributed in April 2023. There were statements, each requiring a response on a five-point and open questions. The responses were analysed using descriptive statistics with the number and percentage of responses that "Agree" to "Strongly Agree" reported in the results. The open responses were analysed and summarised into themes.

### **Results/Evaluation**

There were 34 physiotherapy student responses and 11 physiotherapy teaching responses. The majority of students felt that climate change was happening, although only 61% were concerned about the health impacts of climate change and 23% felt it was important to physiotherapy with 17% agreeing it should be included in the curriculum. The majority of teaching staff agreed climate change was happening and was important to include in curriculum.

### **Discussion**

Physiotherapy students may lack knowledge and understanding of climate change, sustainability and its relevance to physiotherapy practice. Scaffolding the content throughout a course may lead to an integrated approach to inclusion of climate change content and its relevance to physiotherapy rather as been seen as a burden or an add on to curriculum.

### Bridging the university-hospital divide, a collaborative approach to professional development for health professionals

**Bauer C**<sup>1,2</sup>, Lim L<sup>1,2</sup>, Boyle I<sup>1,2</sup>

<sup>1</sup>The Royal Children's Hospital Melbourne, <sup>2</sup>The University of Melbourne

#### Introduction

The Education Hub (The Hub) is a collaboration between University of Melbourne (UoM) and The Royal Children's Hospital Melbourne (RCH). It was established to bring together Melbourne Children's Campus (Campus) partners to develop and integrate health professional education programs, connect educators, and support a culture of learning across Campus and beyond. This project aims to understand how a university-hospital partnership enhances continuing professional development for health professionals.

#### Methods

We undertook a review of existing documents to understand Hub activities and outputs. This included quantitative and qualitative analysis of formal reports, program data and evaluations to review the range of educational activities, level of Campus engagement and learner perceived effectiveness. Findings were framed by the lens of The Hub's three key domains of success: our people, our platforms, and our impact.

#### Results

Early findings suggest demand is growing as is engagement across Campus and externally. *Our people*: program data reveals new links across Campus, RCH disciplines and departments, and externally. *Our platforms*: educational platforms including learning management systems, podcast productions, and social media applications demonstrate steady audience growth and utilisation. *Our impact*: evaluations and research findings show high learner satisfaction and are suggestive of the translation of new knowledge and skills into practice.

#### Discussion

The Hub's model of university-hospital partnership is unique and enhances health professional education by meeting diverse needs across Campus in a way that creates a "value add" to existing university and hospital education activities. Traditionally universities focus on research and on students engaged in undergraduate and post graduate study and hospitals on delivery of direct patient care. The Hub provides an academic lens to hospital operations through education activities and outputs that support the continuing professional development of clinical and non-clinical Campus staff contributing to sustainable education and workforce development.

# Navigating bodies: the challenge medical students face when learning cardiac ultrasound skills in a clinical environment

**Beck S**<sup>1,2</sup>, Whalley G<sup>1</sup>, Coffey S<sup>1,2</sup>, Hawley A<sup>1,2</sup>, Anakin M<sup>3</sup>

<sup>1</sup>University Of Otago- Department Of Medicine, <sup>2</sup>Te Whatu Ora , <sup>3</sup>University of Sydney

## Introduction

The availability of handheld ultrasounds has led to calls for incorporating ultrasound training into undergraduate medical curricula<sup>1</sup>. There is room to investigate the experiences of medical students learning ultrasound on wards, where complex clinical settings shape roles and learning opportunities. Consequently, we investigated how the clinical learning environment shaped the experiences of medical students learning cardiac ultrasound skills.

## Methods

Students were provided with a tutorial, supervised practise, and portable ultrasound equipment for self-directed practise with patients. Over two years, 34 focus group interviews were conducted with 120 fifth-year medical students at the Otago Medical School in Dunedin, New Zealand. The interview protocol and inductive data analysis were informed by the Theory of Practice Architectures<sup>2</sup>.

## Results

Relationships with clinicians and patients were tenuous and brief. Students worried practicing ultrasound may complicate relationships with patients or impose. In response students sought peer support and expert guidance. Practicing ultrasound involved navigating patient's bodies, students' own bodies, and manipulating the ultrasound machine. Students wanted a roadmap to performing the examination including instruction on how to touch and communicate with patients. Exposure to patients with varying body types and pathologies challenged and expanded students' knowledge of cardiac anatomy. Students wanted a secondary road map for troubleshooting the exam when derailed by this variable anatomy and pathology. Initial training and supervision built confidence to practise independently, and students felt it provided a scaffold upon which to integrate other learning from the cardiology module.

## Discussion

Key features of the clinical learning environment that shaped how student learn cardiac ultrasound were the close contact with patients and physical nature of the ultrasound examination. Situating ultrasound training within wards exposes students to complexities that create a challenging but potentially richer experience. Findings may assist educators who are engaged in ward-based procedural training or ultrasound curriculum development.

## References

- 1) Hoppmann RA, et al. International consensus conference recommendations on ultrasound education for undergraduate medical students. *Ultrasound J.* 2022 Jul 27;14(1):31. doi: 10.1186/s13089-022-00279-1.
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# Barriers and Facilitators to Medical Student Learning in the Outpatient Setting: A Narrative Review

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## **Background:**

Recent advances in medicine have resulted in shorter inpatient stays with more outpatient care. This paradigm shift has changed the patient profiles in each environment, with inpatients having more complex specialised conditions and outpatients more common simpler conditions. The profile of patients in outpatient clinics may therefore be better suited to medical student teaching and learning, but there are a range of barriers that require consideration in this setting.

## **Aim:**

The aim of this narrative review was to uncover the barriers and facilitators to outpatient teaching and learning for medical students, and to suggest potential solutions to barriers.

## **Method:**

A literature search of barriers and facilitators to medical student teaching and learning in the outpatient setting was conducted. Three databases were searched: Embase, Ovid Medline, and PubMed, and articles were evaluated using inclusion and exclusion criteria.

## **Results:**

The search identified 461 studies, of which 27 were included. Factors impacting medical student learning in the outpatient setting were divided into 5 main categories for both barriers and facilitators: student factors, preceptor factors, patient factors, technological factors, and environmental or institutional factors. Common topics included time constraints and student perceptions of a lack of quality feedback.

## **Discussion:**

Outpatient clinics are a resource rich environment for medical student education, however, there are unique barriers and facilitators to teaching and learning in this setting. This review highlights common and institution-specific barriers and facilitators and offers an approach to assessing outpatient settings. In many cases, a multimodal course of action is required to optimise medical student learning, which may include education of patients about student training, upskilling of students and preceptors about medical education, and improving feedback. Australian studies are required to better understand and improve the current status of medical student outpatient learning in our setting.

## An innovative student placement model utilising mentoring circles and fostering feedback literacy.

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Increased burn-out and pressure is documented across the health workforce.<sup>1</sup> Workforce challenges necessitate innovative placement approaches including utilising less-acute services. This is supported with university initiatives towards increasing learner-agency based feedback. The aim of this research was to explore if a novel, pilot placement model reduced educator and student stress whilst increasing preparedness for future healthcare practice.

### Methods:

This qualitative inquiry study drew on convenience sampling. Three practice academics applied a mentoring-circle supervision structure with a ratio of 4:1 or 6:1 students' per practice academic, and employed a 'feedback literacy framework' (FLF).<sup>2</sup> Students were invited to participate in a focus group post-placement. The focus groups were transcribed - and a team based thematic analysis applied to the data using the FLF as a framework alongside inductive processes. In addition, and following each mentoring-circle, the practice academics completed a reflection diary. Diaries were thematically analysed by university researchers.

### Results:

Twenty Monash University Master of Nutrition and Dietetics students participated in the novel pilot placement. The pilot placement enabled a broader group of educators to be involved and allowed for a 67% increase in student capacity (12 to 20 students). Practice academic reflections revealed shifts for all educators involved: the model was less stressful, and resulted in significant reductions in the time commitment for educators. The model, combined with the mentoring circle and FLF encouraged more confidence, autonomy and learner agency for the students.

### Discussion:

Mentoring-circles may be an efficient and effective placement model for larger groups of novice students, promoting increased confidence and learner agency including feedback literacy. Practice academics successfully led a placement model which was less stressful for everyone involved and built their workforce supervision capacity.

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## Charles Sturt University School of Rural Medicine is building rural health research capacity across an extensive rural clinical school footprint

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### Background

Active engagement in research is required to prepare clinicians to practice effective, evidence-based medicine (1). However, rural health research across Australia is limited (due to a lack of research experience in the rural workforce and limited research funding) (2) and the need to increase rural health research capacity is well documented.

Charles Sturt University's School of Rural Medicine (SRM) commenced as a joint program with Western Sydney University in 2020, established under the Stronger Rural Health Initiative to enable students to stay in rural communities while completing the Doctor of Medicine (MD) program. The program is structured to ensure students are immersed in rural and remote communities, with an extensive rural footprint of nine clinical schools spread from Swan Hill, Victoria to Coffs Harbour, New South Wales.

Medical students must complete a scholarly research project to meet the research requirements of their program. Sourcing and designing relevant scholarly research projects presents a particular challenge in rural and remote regions. The SRM is in a unique position to support both medical students and rural clinicians in building research capacity, while undertaking research focused on the specific health needs of rural and remote communities.

### Methods

The SRM Research and Evaluation team undertook a review of student research projects throughout 2023, with supervisor and student feedback sought in November 2023. Using this data, a re-design has been undertaken with implementation and evaluation commencing in January 2024.

### Discussion

This presentation will describe the lessons learned from the evaluation of the initial round of scholarly research projects and outline the theoretical constructs and conceptual framework informing an innovative re-design of this component of the curriculum and its expected benefits to students, clinicians, and rural communities.

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## Is the journey more important than the destination?

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### Background

Continued education in hospitals stem from a desire for knowledge but also behavioural change. This desire may not be shared by the prospective learners. This paper shares the journey to increase on child mental health and wellbeing for health professionals, establishing their needs and meeting them where they are using the 6-step model for Clinical Education (1).

University of Melbourne, Royal Children's Hospital and Murdoch Children's Research Institute initiated the 5-year Children's Campus Mental Health Strategy (2) to ensure a comprehensive approach to child mental health and wellbeing. The strategy had strong executive support and was funded with philanthropic money (1).

### Methods

We used the 6 step-model for clinical education to lead project development and narrow down the audience, learning needs and barriers. Extensive consultation with learners, stakeholders, clinical educators and people with lived-experience was key. The first course has been piloted as a face-to-face training and developed into an online training.

### Results

Staff consultation of professional groups showed large discrepancies in knowledge, skills, confidence and readiness for change. Several groups had a high interest but limited confidence in practice; others had low interest in learning due to resistance to change, time constraints or discomfort with the topic and role clarity. Evaluation of learner experience and knowledge and skill increase will be evaluated.

### Discussion

Consulting staff at different levels proved invaluable to understand knowledge base and beliefs. Instead of developing courses on mental health, the first course was aimed at normalising mental health and showing how people could support wellbeing in small ways in their role. Consultation and piloting were part of an engagement strategy to create a sense of codesign and interest in future training to implement the wider strategic goals.

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### Cultivating Reasoning through Example-based or Self-Explanation-based Teaching (CREST)?

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#### Introduction/Background

Example-Based Teaching (EBT), underpinned by the Cognitive Load (CL) Theory, uses modelling examples to explicate the expert's mental models in diagnosing and managing diseases. Self-Explanation (SE) entails learning by explaining aloud the pathophysiology and inter-relationship of clinical findings. We hypothesize that EBT is superior to SE in teaching novices Clinical Reasoning (CR) to diagnose and manage eye diseases with more optimal CL.

#### Methods

This experimental study involved 27 second-year medical students without prior Ophthalmology knowledge. On day-1, all students learned ocular anatomy and physiology through face-to-face lectures. On day-3, the students were randomly assigned to learn retinal diseases through EBT or SE, followed by practice cases. CR was tested with Short-Answers-Questions with different scenario-sets (9 cases per set) on days 10 and 40. Different CL (extraneous, intrinsic and germane loads) were assessed using a validated 10-item questionnaire.

#### Results/Evaluation

The test score (median [inter-quartile range]) was higher in the EBT-group (n=15) at day-10 (54.630 [17.593] versus 48.148 [13.889], p=0.047, Mann-Whitney-U test) than SE-group (n=12). There were no inter-group (Mann-Whitney-U test) differences at day-40 or intra-group (Wilcoxon-Signed-Rank test) differences across visits. Germane Load (median [inter-quartile range]) was higher in the EBT-group (76.167 [10.834] versus 71.250 [8.542], p=0.016, Mann-Whitney-U test), without inter-group differences in Intrinsic and Extraneous Loads.

#### Discussion

With better test performance, EBT was more efficacious than SE in teaching novices CR for retinal disease. EBT's explication of the expert's problem-solving schema facilitates learning with a higher germane load. This is unlike SE, which relies on the learner's weaker cognitive strategies. CL Theory explains EBT's superiority as an instructional design, as the optimized germane load facilitates schema formation, leading to better CR

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## A comparative study exploring the application of self-evaluation in online clinical skill development

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### Introduction/Background

Interpersonal and communication skills, such as confidence, empathy, and active listening, are imperative for health professionals working with patients/clients in healthcare. Traditionally, these skills have been taught through various educational approaches, including role-play exercises with peers, case studies, and simulated patients (Aper, 2012). With the prevalence of asynchronous online learning, these interactive educational approaches may no longer be available or require adaptation. Consequently, learners often rely on self-evaluation to achieve desired learning outcomes. The primary objective of this study was to assess whether including a self-evaluation framework in an asynchronous online clinical skill training would enhance learners' self-efficacy, knowledge and consultation skills.

### Methods

The experimental study included students from social science (e.g., education,  $n=24$ ) and health disciplines ( $n=64$ ): psychology, social work, public health, nursing, and allied health. The students were assigned to either a self-evaluation condition ( $n=44$ ) or a video control condition ( $n=44$ ). The intake interview training module included a recorded demonstration of the clinical skill, presenting behaviours, a didactic summary of a theoretical framework and verbatim examples. The participants in the self-evaluation condition completed written and practical exercises to encourage self-evaluation and reflection. Pre- and post-training measures were included to ascertain the learners' perception of their progress regarding self-efficacy, knowledge and understanding of patient/client consultations. A pre-and post-training simulated parent interview was recorded, and this observational data provided an objective assessment of the learners' skill development.

### Results/Evaluation

Data analysis commenced in January 2024. We anticipate that the participants in the self-evaluation condition will have larger improvement post-training compared to those in the video control condition.

### Discussion

The findings of this study will benefit future studies, especially those asynchronous online modalities. If self-evaluation can be shown to improve learning outcomes, it can be integrated into the online clinical competency training as a reliable assessment method.

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## Exploring the experiences of postgraduate nursing students in accelerated asynchronous online courses

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### **Introduction/Background**

This study focuses on the experiences of postgraduate nursing students enrolled in accelerated asynchronous online courses at an Australian metropolitan university. These courses offer increased flexibility but present unique challenges that may impact learning outcomes and student satisfaction, including difficulties in deep learning, real-time instructional support, and managing high cognitive loads. A review of the literature could not identify any studies specifically reporting on accelerated, asynchronous online-only courses.

### **Methods**

A qualitative descriptive design was employed with 11 participants selected using purposive sampling. Data were gathered through semi-structured interviews and analysed thematically, adhering to the Consolidated Criteria for Reporting Qualitative Research guidelines.

### **Results/Evaluation**

Participants ranged in age from 25 to 57 years, and were predominantly female, reflecting the nursing profession's demographic. They reported valuing the flexibility of online learning, but struggled with self-regulation, time management, and balancing study with personal life. The accelerated course pace led to stress, reduced deep learning, and a focus on assessment completion over educational objectives. The university's reputation and the program's design were critical in their enrolment decision.

### **Discussion**

The study highlights the complexities faced by postgraduate students in accelerated online only environments. It underscores the importance of balancing flexibility with structured support to enhance learning outcomes and student well-being. The findings suggest a need for educational institutions to re-think course design, pacing, and student support in these intensive learning formats. Future research could focus on long-term impacts of such courses and explore pedagogical innovations to improve student engagement and satisfaction.

## Students clinical workbooks, digital story telling and patient-lived experiences to enhance person centred care. Can it be done?

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### **Introduction**

Person-centred care (PCC) is now seen as a fundamental principle of quality, safe care.

Embedding patient-lived experiences into healthcare education has shown to enhance students' confidence in delivering effective PCC.

Digital storytelling (DST) is one method of delivering patient-lived experiences. There is a dearth of research on the use of DST in healthcare, but the evidence suggests that it can help improve reflection, understanding, critical thinking and empathy, core attributes of effective PCC.

### **Methods**

Authentic patient-lived experiences, mined and adapted from students' clinical workbooks, were presented in vignettes and delivered in face-to-face tutorials. Students were invited to attend post-session focus groups to explore their perspectives of the DST.

### **Results**

Thematic analysis of focus groups conducted identified three main themes. (1) Enhancing PCC; (2) Mode of Delivery and (3) Collaborative Learning. Up to 93% of students identified the DST as the first time they had a meaningful activity psychosocial aspect of patient care in their course. 71% indicated the mode of delivery, with the scenarios presented incrementally, as engaging and unique. The benefit of collaborative learning was identified by 57% of students where learning could take place in a safe and supportive environment.

### **Conclusion**

This project explored the student perspectives of the impact of DST to deliver patient-lived experiences. With growing awareness of the importance of PCC, empathy and compassion as core elements for quality safe healthcare students felt better prepared to deliver the promise of being person centred.

Implications for practice

When carefully curated, DST can provide opportunities to develop skills to deliver PCC and can lead to improved reflection, understanding, critical thinking and empathy.

“How are senior staff supposed to know...” – The perceived importance and feasibility of giving feedback up to senior colleagues, among doctors and nurses.

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### **Background**

Feedback up, from junior to senior clinical staff, is important for junior staff, to facilitate their workplace teaching and learning, and senior staff, to develop teaching and leadership skills. The aims of this study were to explore experiences and perceptions towards feedback up in junior and senior medical and nursing staff, and to use this knowledge to develop and implement a feedback up strategy in our institution.

### **Methods**

Doctors and nurses in both junior and senior clinical roles at our tertiary paediatric hospital in Melbourne, Australia, were invited to participate in a survey regarding their perceptions and experience of giving (junior staff) or receiving (senior staff) feedback up. An optional follow-up interview was offered to participants to further discuss their experiences. Semi-structured interviews were recorded, transcribed, and then analysed using inductive thematic analysis.

### **Results**

Surveys were completed by 62 junior and 70 senior staff and interviews were carried out with 6 junior and 6 senior staff. 95% (n=124) of all staff believed that feedback up is important or essential and 95% (n=125) that a process to facilitate this is possible. Despite this, only 42% (n=56) of all staff surveyed were involved in giving or receiving feedback up. Staff experiences were further explored in interviews, where six themes were identified regarding feedback up including discomfort with the process, the impact of the power differential amongst staff, a lack of expectation, unclear processes, a lack of time/opportunity and tensions in feedback purpose and validity amongst staff.

### **Discussion**

In contrast to the participating organisation's current approach to feedback up, which is inconsistent and for many non-existent, we propose an organisation wide acceptance and expectation around feedback up to improve communication, teamwork, and refinement of skills.

## The 'Learning-Bytes' program: an innovative, online professional development resource to support clinical educator faculty

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### Introduction

Professional development opportunities for clinical educators are limited, despite best-evidence suggesting additional training and support is needed. Clinical educator faculty continue to report a lack of confidence and feeling underprepared to create learning environments that encourage the higher-order thinking critical for work-ready graduates. The 'UniSA Learning Bytes for Clinical Educators' program, a flexible, self-directed, asynchronous, easy-access program of learning was developed to address this gap.

### Methods

A mixed method design was used to develop, implement, and evaluate the 'Learning-Bytes'. The development and implementation phases, underpinned by self-determination theory were guided by the Analysis, Design, Development, Implementation, Evaluation (ADDIE) model of instructional design. Developed in consultation with an expert Reference group and co-designed with students, educators and course coordinators, 'Learning-Bytes' enabled autonomy in the learning experience, built competency in educator roles, and promoted internal motivation to strengthen teaching abilities. The Kirkpatrick Model guided program evaluation which included program analytics, pre-post surveys and focus groups.

### Results

A flexible, online faculty development program was created. Housed on an external Moodle site, the program comprised five stand-alone modules, called 'Bytes', and a final capstone event, the 'Mega Byte'. Sixty-four participants completed the program and 32 completed pre-post surveys. Evaluation of the 'Learning-Bytes' online program demonstrated strong engagement and positive learning outcomes, with participants rating the program as easy to navigate, supporting engagement and facilitating learning. Participants consistently rated the program as easy to use and meeting their learning needs. Sixty-two percent of participants reported having already implemented new learnings into practice.

### Discussion

The creation of the 'Learning-Bytes' program provides clinical educator faculty with an accessible and engaging online professional development program developed and implemented using sound pedagogical and theoretical frameworks. The 'Learning-Bytes' is a valuable first step providing a relevant, accessible, and sustainable resource designed to support faculty development.

## Enhancing clinical supervisor effectiveness and the supervisory culture in a tertiary teaching hospital through an innovative program of professional development.

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### Introduction/Background

Common means of trying to influence clinical supervisor effectiveness, such as short 'programs' of professional development, typically have limited impact on practice. This paper reports on an innovative, longitudinal, and systemic program of professional development that was designed to build clinical supervision capacity into a tertiary teaching hospital, improve the educational practice of frontline clinical supervisors, and cultivate the hospital's future educational leaders.

### Methods

We designed and implemented a tapered, three-tiered program of professional development: 1) a foundational self-paced online course (N = 112); 2) online, interprofessional learning communities (PLC) (N = 36); and 3) the award-bearing Graduate Certificate in Clinical Education (N = 17). Participants 'graduated' from one tier to the next, with the largest number of employees participating in the primary tier. We adopted a utilization-focused approach to evaluation (Patton, 2008), which advanced a collaborative relationship between the evaluation stakeholders, ensuring that their respective interests could be addressed. Multiple sources of data were collected across the tiers, using Template Analysis (King, 1998) to analyse the qualitative data and descriptive statistics to quantify surveys' closed questions.

### Results/Evaluation

Participants reported that the program's activities were suitable and acceptable to them. They reported a greater consciousness of their teaching practices, made changes to their practice, and the PLCs allowed better integration of practical knowledge with the formal knowledge from the foundational course. Systemic outcomes included the creation of informal educator networks and professional development 'trickle down'.

### Discussion

The findings suggest that this program of professional development is worth funding, which we believe is transferable to other healthcare settings that place value on clinical education. For the outcomes to be sustainable, an ongoing program of professional development needs to be built into the host institution's fabric so that the resultant supervisory practices become strongly embedded in the organisational culture.

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## Entrustable Professional Activities for Bedside Clinical Teachers

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### **Problem:**

Bedside teaching is an important modality for the training of medical students in clinical settings education [1]. Literature highlighted the need for structured training, assessment, and certification or in other words entrustment of bedside teachers. Therefore, we need to identify Entrustable Professional Activities i.e. "a set of professional tasks that can be fully entrusted to a learner till the required competencies are achieved to perform them proficiently and independently" [2].

### **Objective:**

To define Entrustable Professional Activities (EPAs) for bedside clinical teachers.

### **Methods:**

A multi-method study with clinical teachers, medical educationalists, and postgraduate medical students was conducted. First a nominal group using jigsaw puzzle technique was conducted with 16 participants to identify EPAs. These EPAs were mapped on and validated by the skills/competencies identified for bedside clinical teachers in the literature. The EPAs were then evaluated using EQUAL rubric. This was followed by two-rounds of modified Delphi to develop consensus among 90 participants in round-one and 69 in round-two. For qualitative data, a thematic analysis was conducted. For quantitative data, means and standard deviations were calculated.

### **Results:**

The study identified five EPAs for bedside clinical teachers: developing bedside teaching program, planning bedside teaching session, conducting bedside teaching, conducting bedside assessments, and evaluating bedside teaching.

### **Significance:**

This is the first study that developed EPAs for bedside clinical teachers. The EPAs identified in the study can serve as a guiding framework for the training, assessment, and entrustment of bedside clinical teachers.

**Keywords:** Bedside teaching, Clinical rounds, Entrustable Professional Activities, Clinical preceptors training, Teaching competence.

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## Clinical Placements are Risky Business: An innovative approach to managing risk in clinical education

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### Introduction/Background

The inherent risks associated with clinical education demand robust risk management systems. These systems are essential for effective incident detection and response, enhanced educational quality and maximising the prospects that sites for clinical learning remain safe, healthy, sustainable and productive for students, consumers and healthcare professionals. We introduce the University of Melbourne's Faculty of Medicine, Dentistry and Health Sciences (MDHS) multi-disciplinary Clinical Education Strategy and Risk (CESAR) portfolio—a bold new means to mitigate clinical education risk. The discussion outlines CESAR's trajectory and initial successes in positively impacting clinical education.

### Methods

CESAR crafted a framework aligning with the International Organisation for Standardisation (ISO) 31000 for risk management and the Institute of Internal Auditor's three-line model of defense for governance. User-friendly reporting processes were implemented and made readily available. Workshops for staff incorporated case studies and risk management strategies. A responsive working group was established to provide timely support and governance for escalating serious issues. Maintaining effective communication, CESAR collaborates with the Student Placement Advisory Group, ensuring a seamless connection between the lines of defense within MDHS.

### Results/Evaluation

Through utilising the framework and subsequent reporting processes, universal challenges across health disciplines have been identified, providing an avenue for sharing knowledge and resources. CESAR is an ongoing project and outcomes are being evaluated, but early successes include improved compliance processes, reviewing selection processes and, (through a recommendation for risk control) structured training for clinical educators, prompting the establishment of an Academy of Clinical Educators.

### Discussion

Effective integration of risk management into quality improvement requires unwavering commitment from all stakeholders—university, faculty, industry, and individual programs. Holistic implementation across governance, programs, and workplaces is crucial for long-term success, ensuring high-quality and sustainable clinical placements. This approach benefits MDHS and carries potential implications for other institutions grappling with healthcare education challenges amid evolving demands and workforce shortages.

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## How to initiate, develop and maintain a culture of innovation in a teaching team

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### **Introduction/Background**

Increased attention to inclusive practices and recent challenges to health professional education, from COVID restrictions to generative AI, have highlighted the importance of innovative teaching and learning approaches. Creativity to innovate teaching and learning can be learned and needs to be cultivated as a team culture. Yet, some academics may feel ill-prepared to innovate their teaching approach, and others may feel less supported in developing novel ideas. This workshop will offer a guided process for teaching teams to become more innovative in their delivery of good quality teaching.

### **Methods**

A 5-year evaluation of a highly structured community-engaged teaching program to teach Social Determinants of Health at Western Sydney University School of Medicine in 2014 found challenges in addressing ongoing students' concerns. Program revision necessitated breaking parts of the mould to enable innovations. The process was compounded by two curriculum revisions, COVID restrictions, changes in casual academics, the need to adapt to several external requirements and accommodate ongoing inputs from students and community partners.

### **Results/Evaluation**

We have evolved from conventional teaching approaches to a strong, generative teamwork for teaching innovations. We have gained a University Teaching Excellence Award in the gruelling first COVID year 2020; become a highly decorated team with Advance Higher Education Fellowships; published our works regularly; and best of all, obtained an ever-increasingly positive student and peer feedback on our teaching effectiveness.

### **Discussion**

Reflection of the 15-year journey of our teaching program revealed six keys to success in initiating, developing and maintaining a culture of innovation in a teaching team: identifying the impetus for change, breaking the 'psychic prison' for change<sup>[1]</sup>, building a network of 'partners in crime', creating and nurturing creativity in a supportive environment<sup>[2]</sup>, and building strength from evaluation and scholarship. We believe these keys are transferable to other health professional education teams.

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## Dedicated prevocational supervisor roles: recognising necessity and nurturing growth.

**Sarlos S**<sup>1,2</sup>, Bramely A<sup>1</sup>, Raghunath S<sup>1</sup>, Johnson C<sup>1,2</sup>

<sup>1</sup>Monash Doctors Education, Monash Health, <sup>2</sup>School of Clinical Sciences at Monash Health, Faculty Medicine, Nursing & Health Sciences, Monash University

### Introduction/Background

Prevocational supervisors (PVS) are unit-based clinicians who coordinate training of early career doctors within clinical rotations. Like other health educators, PVS play a fundamental role in shaping clinical learning environments. Presently, the National Framework for Prevocational Medical Training necessitates close working relationships between clinical units and medical education experts, bolstering impetus for dedicated PVS. Yet within health services there can be inadequate recognition/support of these roles.

We aim to:

- share our experience of improving clinical learning environments through formalising PVS positions within our health service, as an exemplar for broader discussion applicable to the health education.
- discuss the value of dedicated supervisor roles in clinical settings.
- exchange experiences, challenges and solutions in delivering targeted resourcing and faculty development for enhancing supervisor capability.

### Methods

We employed a multimodal engagement approach with clinical units, medical workforce and hospital executive to understand the current state of resource and capability requirements for PVS in our health service. We created structured position descriptions outlining PVS key responsibilities to facilitate a shared mental model of the role among stakeholders. We identified gaps and opportunities to establish resources and professional development for PVS.

### Results

Our workforce profile mapping, position description and stakeholder engagement have led to increasing allocation of dedicated PVS across units. We have developed central customisable resources to assist PVS in their roles. Regular PVS training workshops has facilitated supervision skills development, and the sharing of challenges, resources, and initiatives.

### Discussion

Our experience as a dedicated education unit within a health service has proven vital in formalising PVS roles for supporting junior doctors and in providing customisable resourcing and faculty development opportunities for clinical supervisors. Our learnings and those of other clinical educators may provide a forum for an exchange of ideas and will have widespread applicability to health professions educators.

## Exploring the potential of a Human Library as a pedagogy for the development of culturally safe and Inclusive practice for healthcare profession students

**Chu M<sup>1</sup>**, Pope K<sup>1</sup>  
<sup>1</sup>*Monash University*

### Introduction/Background

The Human Library (HL) began as a social movement to promote inclusion, providing opportunities for people to have conversations to challenge stereotype and prejudices. Its effect on cultural competence in healthcare profession students had not been previously investigated. We adopted the HL as an experiential activity for occupational therapy (OT) students' and evaluated the impact this had on their cultural awareness and sensitivity.,

### Methods

Students were invited to participate in a mixed-method study. A survey was used to collect data on participants' characteristics and the Cultural Competence Assessment (CCA, Schim et al, 2003) was used pre and post student attendance at a HL, to measure changes in cultural competency. Quantitative data were analysed using independent samples and paired t-tests, analysis of variance and Pearson correlation. Qualitative data were collected through focus groups and interviews. Thematic analysis was used to analyse qualitative data.

### Results/Evaluation

There were significant increases in overall CCA scores from pre- to post-HL. Participant characteristics such as gender, work experience in aged care and the health sector had a positive effect on pre-HL CCA scores. Qualitative data demonstrated that participants perceived they had a level of cultural competence prior to attending the Human Library however, still made gains in cultural awareness and sensitivity and were motivated and inspired to provide culturally congruent healthcare.

Participants reported being inspired by the HL to provide culturally congruent healthcare and the self-reflection component promoted deeper learning.

### Discussion

A Human Library can be considered as an effective and flexible teaching method for the development of competencies for culturally congruent healthcare that can be delivered in person or online.

### References

Schim, S. M., Doorenbos, A. Z., Miller, J., & Benkert, R. (2003). Development of a cultural competence assessment instrument. *Journal of Nursing Measurement*, 11(1), 29-40.

### Issues or questions for exploration

Please describe the issues or list questions for exploration (100 word maximum)

Findings from this study support the use of Human Library in health professional education. Anecdotally, students and volunteers prefer the Human Library to be delivered face to face.

- How can a Human Library be developed to optimise students learning experiences? What learning outcomes are relevant?
- Is it important to investigate the difference between different delivery modes?
- What are the possible benefits for the volunteer books?
- How to investigate the impact and effectiveness of self-reflection on Human Library in a realistic academic environment?
- How to make the program sustainable with large student cohorts?

### Exploring innovative approaches to placement assessment for CALD students: Are time allowances on the table?

**Williams J<sup>1</sup>**

<sup>1</sup>*Flinders University*

#### **Introduction/Background**

Health practitioner students from culturally and linguistically diverse (CALD) backgrounds experience higher placement failure rates than their peers. Supporting placement success is a priority for everyone, and achieving success without compromising practice or assessment standards is essential.

Innovative multidimensional strategies are crucial to support CALD students across academic and practice topics. While CALD students often receive additional time allowances during university examinations, the same flexibility may not extend to placement activities, particularly those involving patient-related interactions. We propose that this is largely due to a view that patient care would be compromised if time allowances were made for CALD student practitioners.

Placement supervisors are independently navigating innovative ways to support CALD health practitioner students in delivering safe and effective care. Rather than 'modifying student caseload' in terms of complexity (or patient cultural/linguistic profile), one innovative strategy includes simply adapting expectations around efficiencies or time required for certain practice activities. Placement supervisors are seeking guidance on this topic, questioning whether these innovative adjustments are acceptable and considering the potential risks, optics, and impact.

It is important that education providers, placement partners, and students collaboratively develop innovative principles to inform strategies, such as time allowances, adopted through placement. This PeArL session provides an innovative opportunity to explore perceptions and experiences around this important topic.

#### **Purpose/Objectives**

The objective of this PeArL session is to engage in a discussion on the concept or experience of 'time allowances' for culturally and linguistically diverse (CALD) health practitioner students during clinical care delivery.

#### **Issues/Questions for exploration OR Ideas for discussion**

Do we currently have established frameworks or guidelines governing the provision of time allowances for CALD students during clinical care delivery?

Is the practice of providing time allowances for CALD students during clinical care already in place?

If so, what lessons have been learned from existing initiatives?

What are the perceived benefits and barriers to the implementation of time allowances for CALD students during clinical care?

What factors or strategies can act as enablers to overcome these barriers?

What are the identified or perceived risks associated with implementing time allowances for CALD students during clinical care? Can risks be mitigated or 'eliminated' through strategic measures?

This session aims to delve into these key aspects, fostering a comprehensive exploration of the considerations and implications surrounding the incorporation of time allowances for culturally and linguistically diverse health practitioner students during clinical care delivery.

## Wellbeing – Interdisciplinary perspectives on the challenges and solutions for students and staff in the health professions.

**Paparo J**, Chur-Hansen A

<sup>1</sup>Macquarie University, <sup>2</sup>The University of Adelaide

### **Introduction/Background**

Student wellbeing has been highlighted by the Australian Government as a key role and responsibility for the tertiary education sector (Department of Education, 2023). In the health professions, including medicine, nursing, psychology, and other allied health disciplines, accreditation bodies expect a focus on self-care, resilience and wellbeing, for the benefit of the individual, the profession, and to safeguard the community.

Importantly, protections for staff wellbeing are also critical and an expectation of government for Higher Education Providers (Universities Australia, 2024) – as role models, and also for our own benefit, and that of the professions we represent and the communities we serve.

In this session we want to learn about, from and with, one another, regarding how we as educators work towards meeting regulatory responsibilities in fostering wellbeing, and how this links to our own wellbeing as health professional educators.

### **Methods**

Using a roundtable approach, we wish to generate several key discussion points and then use these as the focus of the session. This is on the basis that open dialogue that fosters mutual understanding and can be an effective and empowering way towards finding resolution for a shared problem.

### **Results/Evaluation**

We will use a collaborative workspace to collect data from group participants and produce a document we can share with them after the session. The aim is to (a) provide an opportunity for people to share their knowledge and experiences in an interdisciplinary/interprofessional context and (b) produce ideas about future collaborations to address these challenges, which may include teaching innovations or publications to support educational initiatives.

### **Discussion**

Sharing interdisciplinary perspectives on wellbeing challenges for students and staff in the health professions offers the potential of support, not only for emerging health professionals, but also frontline health professional educators. This aligns with important contemporary government and regulatory requirements.

### **References**

Department of Education (2023, December 20). *New requirements to support students*.

<https://www.education.gov.au/new-requirements-support-students>.

Universities Australia. *Safety & Wellbeing*. <https://universitiesaustralia.edu.au/policy-submissions/safety-wellbeing/>



CULTIVATING INNOVATION

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**ABSTRACTS**

**DAY THREE**

**THURSDAY 4 JULY**



**ANZAHPE**

Australian & New Zealand  
Association for Health  
Professional Educators

## PLENARY SESSION 3

### Endurance and Adaptation, 65,000 years of 'Cultivating Innovation'

**Professor Shane Hearn, First Nations, Bond University**

Aboriginal innovation is anchored in the connection to the land, spirituality, and cultural traditions. In traditional times, the concept of 'cultivating innovation' among First Nation peoples was embedded in their cultural practices, environmental knowledge, and sustainable living. While the term "innovation" may not have been explicitly defined, the principles of adaptability, creativity, and problem-solving were integral components of their ways of life. In particular, Aboriginal health, stands as a remarkable testament to this resilience, wisdom, and enduring strength, with over 65,000 years of cultural heritage and knowledge.

Throughout history, Aboriginal communities have navigated a myriad of health circumstances and adversities, from environmental changes to the introduction of foreign diseases. Despite these challenges, Aboriginal peoples have continuously adapted and maintained their holistic approach to health, drawing from a deep understanding of their interconnectedness with the land, community, and spirituality. This presentation explores how 'cultivating innovation' occurred in traditional times, comparing and summarising Aboriginal innovation to Western innovation and understanding the distinct approaches, values, and contexts that shape each tradition, and the enduring resilience of Aboriginal health practices in the face of adversity, and argues for the importance of Western approaches to listen to and understand First Nation perspectives. By acknowledging and incorporating Aboriginal knowledge systems, Western healthcare systems can foster greater inclusivity, effectiveness, and cultural competence. Through a collaborative approach, bridging the gap between First Nation wisdom and Western health, we can strive towards more equitable and comprehensive healthcare for all.

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### The Elephant in the Room: Managing and Preventing Bullying, Harassment and Discrimination - A Guide for Medical and Allied Health Education.

**Clayman D<sup>1</sup>**

<sup>1</sup>*University of Melbourne*

#### **Introduction/Background**

The new publication *Preventing and Managing Bullying, Discrimination & Harassment – a Guide for Medical Schools* is designed to assist medical and allied health schools to discuss and improve their approach to the prevention and management of bullying, discrimination and harassment (BDH), particularly in clinical training environments.

#### **Methods**

Creation of the guide was overseen by a Working Group established by Medical Deans Australia and New Zealand. It is based on desk research, responses to a 2023 survey of Medical Deans' member schools, input from the Working Group members, and advice from other subject matter experts.

#### **Results/Evaluation**

While medical schools operate under the BDH policies set by their universities, most of the BDH experienced by their students occurs on clinical placements in health services. The guide was created in recognition that there is little available by way of resources to assist health professional programs in building a context-specific response to BDH. It brings together a range of evidence, information and advice specifically relevant to health training settings.

#### **Discussion**

The working group recommended approaches for schools that will be discussed in more detail but include: shared definition and understanding of BDH behaviours; spiralled training for students across all years of study; tiered staff training, with additional training for senior leadership and frontline staff; regular discussion between universities and health service partners regarding BDH prevention and management; layered reporting systems emphasising student autonomy and privacy, access to specially trained staff, well defined communication protocols at all levels; and communication of clear consequences for BDH through de-identified reports.

## Can we improve grit, resilience or growth-mindsets in health professional students?

**Calo M**<sup>1</sup>, Peiris C<sup>1,3</sup>, Judd B<sup>2</sup>

<sup>1</sup>La Trobe University, <sup>2</sup>University of Sydney, <sup>3</sup>Royal Melbourne Hospital

### **Introduction:**

Health professional students face compounded stress from clinical and academic demands. Grit, resilience, and a growth-mindset are personal traits that can help students positively adapt to the challenges of health professional training. However, it is unclear if interventions can improve these traits. A systematic review was undertaken to explore if interventions can improve grit, resilience and/or a growth-mindset in health professional students and the impact on wellbeing.

### **Methods:**

A search of four databases was conducted from inception until 15 March 2023. Inclusion criteria comprised randomised or non-randomised controlled trials and single-group intervention studies that aimed to improve health professional students' resilience, grit and/or growth-mindset. Two reviewers independently screened studies and assessed quality via the Mixed Methods Appraisal Tool. Post-intervention data from randomised and non-randomised control trials were pooled using a random-effects model to calculate standardised mean differences (SMD) and 95% confidence intervals (CIs).

### **Results:**

Resilience interventions improved resilience by a moderate amount in 990 participants across 13 studies (SMD 0.74, 95%CI 0.03 to 1.46) and a large amount when interventions were more than one session in duration (SMD 0.97, 95%CI 0.08 to 1.85). Resilience interventions also decreased perceived stress by a small amount (SMD -0.38, 95%CI -0.62 to -0.14, n=5). Grit and growth-mindset interventions improved grit SMD 0.48 and growth-mindset SMD 0.25 by a small amount.

### **Discussion:**

Resilience can be enhanced and stress reduced in health professional students with targeted resilience interventions. Early evidence also suggests that interventions can improve grit and growth-mindset. The effectiveness of interventions appears to be optimised with a multi-session approach, particularly when tailored to students with low baseline levels of resilience and/or grit.

## Wellbeing benefits for medical students participating in a performance-focused music elective

Orchard A<sup>1</sup>, Sitoh J<sup>1</sup>, Wyatt A<sup>2</sup>, Moore M<sup>2</sup>

<sup>1</sup>Flinders University, <sup>2</sup>Flinders Health and Medical Research Institute, Flinders University

### Introduction/Background

The endemic problem of burnout in the medical profession requires innovative teaching and learning approaches that can build students' awareness of and capacity to support their own wellbeing and mental health. Engagement with music is known to afford a range of wellbeing benefits for medical students (Orchard et al., 2023). Medical students with a musical background value opportunities to maintain their participation in music, often choosing to participate in extra-curricular choirs, bands, orchestras and recitals, however performance-focused music activities within medical curricula have been little documented (Tu et al., 2021; Orchard et al., 2023).

### Methods

Students participating in the semester-long 'Music for Health' elective at Flinders University between 2018-2020 were invited upon their graduation to grant access to individual written reflections submitted at the conclusion of the elective. Eleven students granted permission for their written reflections to be accessed. An interpretative phenomenological analysis (IPA) of student reflections was undertaken to explore how students experienced participation in a performance-focused music elective offered within the medical curriculum.

### Results/Evaluation

Three global themes were identified. Firstly, regularly playing and performing music enabled experiential learning about the benefits of music participation, complementing teaching and learning about the therapeutic potential of music. Secondly, musical collaboration with peers, while initially challenging, developed camaraderie and trust as well as transferable skills in communication and teamwork. Thirdly, participation in the elective enabled students to reflect about the value of music for enjoyment, relaxation, human connection and to support personal wellbeing and mental health.

### Discussion

Participation in a performance-focused music elective can facilitate growth in students' awareness about their own use of music and reflexivity in its applications. This study contributes to the evidence supporting student-led approaches to offering music in medical education with the aim to enhance student wellbeing and personal and professional development.

### References

Orchard AR, Sitoh J, Wyatt A & Moore M. (2023) Music in medical education: A critical interpretive synthesis. *Medical Education*. <https://doi.org/10.1111/medu.15255>

Tu A, Truong T, Carlson KJ, Brooks MJ & Dowdall JR. (2021) Reducing "Treble" with Performance Focused Music Programs in Medical School: A Student Driven Needs Assessment to Clarify Participation Barriers Amongst Undergraduate Medical Students. *Journal of Wellness* 3(2), Article 5. <https://doi.org/10.18297/jwellness/vol3/iss2/5>

### Keywords:

Music, medicine, wellbeing, medical education, medical student

## Work-related wellbeing drivers, professional fulfillment and burnout among medical officers in a regional hospital setting

**Hodge E<sup>1</sup>**

<sup>1</sup>*Bundaberg Hospital, Queensland Health*

### **Aim:**

To assess the work-related wellbeing and workplace drivers of professional fulfillment and burnout among Wide Bay Hospital and Health Service (WBHHS) medical officers, to guide wellbeing interventions.

### **Methods:**

An online cross-sectional survey occurred in July 2023, with all WBHHS medical officers invited to participate. The survey combined two tools; the Stanford Professional Fulfillment Index was used to assess work-related wellbeing (professional fulfillment and burnout), along with a workplace issues inventory derived from the CQHHS medical wellbeing survey, to assess the relative perceived influence of various wellbeing drivers.

### **Results:**

A survey response was received from 124 medical officers across both Bundaberg (n=69), Hervey Bay (n=53) and Rural (n=2), representing approximately 22% of total WBHHS medical officers. Participants comprised approximately 60% (n=74) prevocational doctors (including interns, RMOs and PHOs), 12% (n=15) registrars and 28% (n=35) SMOs. Around 63% (n=78) of participants were international medical graduates, reflecting the approximate proportions of the WBHHS workforce. Overall, 25% (n=31) reported professional fulfilment and 13% (n=13) reported burnout.

The top 6 workplace issues were (i) inefficient work practices and/or processes, (ii) medical officer vacancies in my department, (iii) inadequate support staff and/or excessive admin burden, (iv) inadequate workplace staff amenities, (v) poor access to nutritious onsite food, (vi) inability to access my entitled daily meal break.

### **Recommendations:**

These results provide a clear evidential basis for the implementation of targeted, locally contextual interventions that enhance wellbeing for medical officers in WBHHS.

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### How are postgraduate health science students using ChatGPT in assessment?

**Rivers N**<sup>1</sup>, Grieve A<sup>2</sup>, Beilby K<sup>1</sup>

<sup>1</sup>*Education Program in Reproduction and Development, Faculty of Medicine, Nursing and Health Science, Monash University,* <sup>2</sup>*Student Academic Support Unit, Faculty of Medicine, Nursing and Health Science, Monash University,*

#### **Introduction/Background**

As generative AI (GAI) tools are embedded in the university experience, considering learners' perspectives is important to understand if the tools are being used as intended. This study reports the experiences of postgraduate students to determine how the GAI tool, ChatGPT, shaped their learning.

#### **Methods**

In 2023, ChatGPT was integrated into a series of assessments designed to scaffold students' informed judgements of how GAI can shape their learning. Focus groups with students (n=8) were conducted to identify how the task informed their engagement with GAI, using an inductive qualitative approach. None of the participants had interacted with any GAI before this study.

#### **Results/Evaluation**

The dominant theme of participants was that ChatGPT was useful sometimes, but could only achieve the objectives of their assessments with their collaboration. Participants used ChatGPT to aid their learning by checking their understanding, sourcing additional perspectives or ideas, and seeking feedback on their writing. While participants felt capable of identifying issues with ChatGPT's outputs following the scaffolded task, many were concerned that if they had not developed the ability to analyse texts critically, they would have relied on the tool to their detriment. Participants also felt GAI pressured educators to improve assessment design, which could benefit the student experience.

#### **Discussion**

While concerns persist regarding the impacts of GAI, considering the learner's perspective can shape educators' approaches to integrating these tools into assessment. Issues of integrity did not emerge as a major concern which participants attributed to enhanced assessment design and the development of skills in critical analysis. Furthermore, participants productively used ChatGPT to aid their learning. The study highlights educators need to understand their students' level of AI literacy when designing GAI into assessment to ensure it is used as intended.

## Improving virtual assessments through innovative analytics: ensuring fairness and quality for rural registrars

**Dawber J**<sup>1</sup>, Fraser J<sup>1</sup>, Wong E<sup>1</sup>, Cotrone L<sup>1</sup>

<sup>1</sup>ACRRM

### **Introduction/Background**

*Virtual medical assessments are increasingly employed, particularly in geographically dispersed regions. The shift to the virtual realm has brought about challenges, but also opportunities in providing enhancements to assessment analytics.*

### **Methods**

*This presentation showcases how ACRRM leverages innovative live analytics to enhance the fairness and quality of high-stakes examinations for rural registrars. We present a unique system that monitors alignment across examiners, scenarios, items, and occasions, providing real-time insights into potential biases or inconsistencies. The system primarily uses Microsoft products hence does not require sophisticated software development.*

### **Results/Evaluation**

*Through the use of live analytics and use of recordings we ensure that borderline candidates receive fair consideration and improves the robustness of the standard setting process. Beyond fairness, through post-assessment analytical reports we deliver comprehensive feedback to each candidate, allowing them to pinpoint areas for improvement and tailor future study efforts. This presentation will delve into the system's functionality, highlight its real-world impact on rural registrar examinations, and explore its potential wider applications in various assessment contexts.*

### **Discussion**

*Assessments are data-rich measures of registrar progress, yet too often the data are not exploited to their full potential. We show how innovative analytics, both during and post exam, can improve assessments for both administrators and registrars.*

## Medical student and supervisor perception of workplace-based assessments

**Ng L1**, Kuek J, Elliot S, Reid K  
*1University Of Melbourne*

### Introduction/Background

Workplace-based assessments (WBA) were introduced into medical training a few decades ago in recognition of the relationship between assessment and learning and in response to concerns about the workplace-based training of doctors. The increasing use of WBA has highlighted the importance of strategies for successful and sustainable implementation of such assessment. With the introduction of any novel assessments, user acceptability and engagement is key to continued success.

At the University of Melbourne (UoM), two broad categories of WBAs were developed for the final year students (approx. 350 in a cohort) in 2022 – global perception WBA and skill-based WBA, based on the anticipated introduction of Entrustable Professional Activities for junior doctors by the Australian Medical Council. For successful and sustainable implementation of the WBAs, it is important to assess stakeholder experience of the WBAs. This study aims to explore the experience of the students themselves but also supervising staff.

### Methods

Final year UoM medical students and supervisory staff members will be recruited for this mixed-methods study. Evaluation data have been collected over the past 3 years. An online survey will be sent to all final year medical students to collect quantitative data and free-text comments on students' experience of WBA. Survey questions have been derived from similar studies and from past UoM evaluations.

Semi-structured interviews are being conducted with final year students (n=10-15) and staff (n=10-15). Participants have been invited to discuss their perceptions of WBA and the impact of their experience on student learning. Interviews with individuals will continue until data saturation occurs. The experience of WBA will be explored through thematic analysis.

### Results/Evaluation

The project is in progress. Ethics approval has been granted. To date, evaluation data have been collected and 2 students have been interviewed.

### References

- Norcini, J., & Burch, V. (2007). Workplace-based assessment as an educational tool: AMEE Guide No. 31. In *Medical Teacher* (Vol. 29, Issues 9–10, pp. 855–871).  
<https://doi.org/10.1080/01421590701775453>
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<https://doi.org/10.1007/s10459-015-9614-0>.

# A portfolio-based workplace learning plan to assess pre-registrant (intern) pharmacists' advancing competencies

Emery B<sup>1</sup>, Walker S<sup>1</sup>, **Emery B**<sup>1</sup>

<sup>1</sup>Monash University

## Introduction:

In Australia, pharmacy practice is underpinned by the National Competency Standards Framework (NCSF).<sup>1</sup> Pre-registrant pharmacists (i.e. interns) complete a year-long supervised program to meet core competencies of the NCSF.

In 2016, an extension work-integrated learning (WIL) program was established to fast-track intern development of more advancing NCSF competencies.<sup>2</sup> To evidence this, interns are expected to complete a series of workplace-based assessments (WBA) as part of a year-long workplace learning plan (WLP).

## Aim:

The aim of this project was to investigate the most commonly performed WBAs for pharmacy interns.

## Method:

In 2023, a more overt portfolio-based WLP was established. For each of the five NCSF domains (Domain 1: Professional practice, Domain 2: Communication/Collaboration, Domain 3: Medication management, Domain 4: Leadership and Domain 5: Education), interns were required to select a range of WBAs for their portfolio submission. Interns complete supervised training in either a hospital or community setting and were expected to liaise with their supervisor to select WBAs catered to their development needs and advancement goals.

## Results:

In 2023, 231 (n=110 hospital, n=121 community) interns were enrolled in the program. For Domain 2, the most commonly performed WBA was "written communication to a Doctor" (81%) for community interns and an "inpatient/progress note" (58.1%) for hospital interns. For Domain 3, the most commonly performed WBA was a "primary care case" (82.6%) for community interns and a "Best Possible Medication History" (92.7%) for hospital interns. For Domain 5, the most commonly performed WBA was "supervision of a learner" (58.7%) for community interns and a "continuing education presentation" (78.2%) for hospital interns.

## Conclusion:

This is the first pre-registrant program in Australia which uses a portfolio-based WLP to assess advancing competencies. Utilising portfolio-based WLP evidence allows for structured documentation of development in NCSF domains of competency.<sup>3</sup>

## References:

1. Pharmaceutical Society of Australia. National Competency Standards Framework for Pharmacists in Australia: Pharmaceutical Society of Australia; 2016. Available from: <https://www.psa.org.au/practice-support-industry/national-competency-standards/> [Accessed 9<sup>th</sup> January 2024]
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3. Peeters, M. J. (2017). Targeting assessment for learning within pharmacy education. *American Journal of Pharmaceutical Education*, 81(8)

1. **Category:** Assessment

2. **Keywords:** workplace-based assessments, competencies, work-integrated learning

3. Not considered for prize category

## Experiences, beliefs and attitudes of health professional students of attendance hurdles for practical classes

**Donald K**<sup>1</sup>, Haber T<sup>1</sup>, Byrne S<sup>1</sup>, Cheshire L<sup>1</sup>, Clements T<sup>1</sup>, Cochrane A<sup>1</sup>, Hill N<sup>1</sup>, Kefalianos E<sup>1</sup>, Lees J<sup>1</sup>, Stander J<sup>1</sup>, Story L<sup>1</sup>, Tarrant B<sup>1</sup>, Virtue D<sup>1</sup>

<sup>1</sup>*The University Of Melbourne*

### Student responses to co-designed planetary health education: a pilot study in nutrition and dietetics

**McCartan J**<sup>1</sup>, Chau K<sup>1</sup>, Chong W<sup>1</sup>, Londono R<sup>1</sup>, Cubillo B<sup>1,2</sup>, Barbour L<sup>1</sup>

<sup>1</sup>Monash University, <sup>2</sup>Deakin University

#### Introduction/Background

Planetary health is the intricate relationship between the health of humans and the Earth's natural systems (1). Health professionals play a crucial role in promoting planetary health, however, fit-for-purpose planetary health curricula is urgently required within health professions training (2). Co-designing curricula with, and for, students is an effective way of simultaneously empowering students and developing educator capacity. This research aimed to examine the responses of tertiary public health nutrition students engaged in a planetary health education workshop co-designed by students and educators.

#### Methods

Over a 4-week period, five nutrition students and one nutrition educator co-designed, piloted and refined a 2-hour in-person workshop. To examine student responses to the workshop activities, qualitative and quantitative methods were used to explore: (i) Students' knowledge, attitudes and self-efficacy regarding planetary health, (ii) Students' understanding of the term 'planetary health' and (iii) Students' perception of and connection to 'planetary health'.

#### Results/Evaluation

Analysis of pre-post data identified that students (n=44) reported higher levels of confidence in interpreting the term 'planetary health' ( $p<0.0001$ ), addressing the causes and consequences of climate change as health professionals ( $p=0.001$ ), and feeling more equipped to advocate for improved planetary health ( $p<0.0001$ ). Students most commonly understood planetary health in terms of 'sustainability', 'environment' and 'climate change'. Students personally connected to planetary health around the concepts of: a) responsible and sustainable use of natural resources, b) sustaining healthy life for future generations, and c) humans' role in protecting and preserving our ecosystem.

#### Discussion

This co-design education model offers multiple benefits. Students involved in the co-design process and workshop facilitation gained leadership, education and research experience, their peers who participated in the workshop gained knowledge and improved self-efficacy scores regarding planetary health action, and educators gained valuable insight into designing engaging, fit-for-purpose planetary health curricula.

#### References

1. Guzmán CAF, Aguirre AA, Astle B, et al. A framework to guide planetary health education. *The Lancet Planetary Health*. 2021;5(5):e253-e255. doi:10.1016/S2542-5196(21)00110-8
2. Shaw E, Walpole S, McLean M, et al. AMEE Consensus Statement: Planetary health and education for sustainable healthcare. *Medical Teacher*. 2021;43(3):272-286. doi:10.1080/0142159X.2020.1860207

## Digital transformation in pharmacy student placements: A strategic approach to orientation

**Ratnayake S**<sup>1</sup>, Chen J<sup>1</sup>

<sup>1</sup>*Eastern Health*

### **Introduction/background**

Pharmacy students undertake hospital pharmacy placements during their coursework, however, exposure to new systems, processes and people can be overwhelming and challenging. To mitigate this, the education and training pharmacy team utilises digital platforms to deliver an orientation session for pharmacy students on their first day of placement prior to commencing onsite. A new 1.5-hour virtual orientation session was developed in response to challenges posed by the COVID-19 pandemic in early 2020. This study aimed to evaluate the effectiveness of a virtual orientation session in facilitating student readiness for placement.

### **Methods**

The virtual orientation session engages student participation by providing insight into hospital pharmacist's roles, expectations, clinical resources, points of contacts, timetabling, and navigating key internal programs. Previously, this was conducted by varying supervising pharmacists at individual placement sites thus proved inefficiencies and lacked guidance. Student feedback was collected through verbal end-of-placement sessions and an anonymous online survey.

### **Results/Evaluation**

Survey responses of 91 pharmacy students (53%) who had placement between 2021 and 2023 revealed that 76% were 'very satisfied' with the orientation program, 19% were 'satisfied' and 1.1% (n=1) were 'dissatisfied' without further explanation. Verbal feedback from students emphasised the morning orientation "relieved anxiety" and highlighted "what to expect".

### **Discussion**

Implementation of virtual orientation sessions for pharmacy students has been recognised as an effective and meaningful approach to promote readiness for placement.

Acknowledging the limitation of utilising self-reported subjective data, further improvement of the virtual session will require greater student feedback response rates. The current success of the virtual orientation program highlights its suitability and effectiveness in delivering an impactful orientation experience, which can be adopted by other healthcare organisations.

## Breaking the silence: medical students' experiences of difficult feedback conversations

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### Introduction

Navigating difficult feedback conversations in the clinical environment is important for shaping medical students' learning and professional development. Feedback can be viewed as a social process, influenced by both the learner's knowledge, attitudes and values and by external forces such as hierarchy and language (Erickson et al., 2022). We aimed to explore how medical students experienced challenging feedback encounters.

### Methods

This study employed a narrative approach (Labov 1997). We conducted semi-structured interviews with 20 medical students from a single university in Australia and asked them to describe a time when they received difficult feedback. We prompted participants to discuss content and context for the encounter and to share how they felt about the feedback at the time and how, or if, they had made sense of it since.

### Results

Difficult feedback encounters were rarely experienced as a dialogic conversation. Learners consciously employed periods of silence to manage their emotions, protect their self-image, and navigate the hierarchical culture. They described being silenced by supervisors through interruptions and rhetorical questions and by healthcare system pressures. Participants engaged in conversations essential for sense-making, after the initial feedback encounter, encompassing interactions with family, friends, and peers. Despite 'feedback sharing' and the benefit of perspective afforded by time, not all challenging feedback conversations were seen to be productive.

### Discussion

Our findings challenge a dominant notion that feedback should be a two-way conversation between the learner and supervisor for it to be meaningful. Rather than perceiving the learner's silence to indicate a lack of insight or engagement, we encourage educators to expect and welcome in certain circumstances, a place for silence in feedback conversations. Feedback literacy curriculum should sensitize learners to the roles of silence and feedback sharing, to help them make sense of challenging feedback conversations.

### Key words

Medical education, difficult feedback, feedback sharing

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## Embedding WIL in the block model to facilitate transfer of learning: Reflections from educators

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### **Introduction**

This presentation will introduce a university's newly adopted approach of embedding Work Integrated Learning (WIL) experiences within the block model of learning. The aim of this approach is to integrate theory and practice (clinical) learning simultaneously, supporting speech pathology students to consolidate and transfer their knowledge and skills into professional practice.

### **Methods**

This model includes six communication domain units. Each unit runs for four weeks and contains workshops, a practical lab and a WIL experience each week. These WIL experiences offer unique opportunities for students to learn through service learning and role emerging models of practice education. Thoughtful development of the WIL experiences consciously aligns with the units' learning outcomes and assessments. Students are assessed on WIL experiences with the use of an innovative rubric aligned to Speech Pathology Australia's (SPA) contemporary Professional Standards.

### **Evaluation**

This presentation will communicate early reflections on the implementation of the innovative integrated WIL model, with a plan to formally assess its impact and efficacy once the first student cohort has completed all course practice education requirements. Early reflections on this model elucidated by university and practice educators have indicated benefits such as supported timely reflections on WIL experiences, improved student confidence and increased relevance of class content thereby facilitating multiple opportunities to consolidate practice-based skills and transference of theory. Reflections on perceived challenges with this model included the condensed timeframe of the units, supporting students to conceptualise alternative models of practice education and the sustainability of placements in this model in the current climate.

### **Discussion**

Whilst this model is in its infancy and further research is warranted to examine the impact on student learning, initial reflections and feedback from university and practice educators indicate that this approach is an exciting and unique method to prepare students for readiness to practice.

## Using learning theories to guide the design of simulation-based experiences to support allied health students undertaking work-integrated learning

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### Introduction/Background

With the increasing use of simulation-based learning as preparation or substitution for work-integrated learning health educators need to ensure the purposeful selection of educational methods and to consider how simulation design can optimise learning outcomes. Learning theories provide foundations for understanding how a learner constructs, understands and applies knowledge (Khalil & Elkhider, 2016). Using a learning theory is crucial when designing innovative simulation-based experiences to ensure the desired learning outcomes are met. Despite the extensive literature on learning theories, they are often poorly translated into simulation design (O'Shea et al., 2021).

### Methods

A narrative review was undertaken to explore simulation-based learning linked to allied health student professional placements to identify (i) the learning theories reported and (ii) how learning outcomes are aligned with the reported learning theories.

### Results/Evaluation

Only eight of the 25 identified studies explicitly reported a learning theory which were linked to three theoretical underpinnings: Behaviourism, Cognitivism, and Constructivism. In all eight studies, learning theories were only briefly mentioned, with minimal attempt to link them to the learning experience.

### Discussion

This review identified a need for guidance to assist health professional educators in navigating learning theories. Educators should seek to understand relevant learning theories and how they apply to simulation-based learning to ensure the provision of quality work-integrated learning experiences. Understanding grand theoretical underpinnings can inform the selection of suitable activities and assessments that align with desired learning outcomes. Ultimately empowering educators to design more effective simulation-based learning that maximizes learning outcomes. As a result, the authors developed a practical guide for educators to better understand how learning theories can be incorporated into simulation-based activities and how best to measure learning outcomes.

### References

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## Interprofessional 'Ward for a Day' Simulation Project

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### **Abstract**

Students experience challenges transitioning from their discipline focus, to working collaboratively, particularly in hospital wards. Interprofessional education (IPE) is a valuable educational strategy to improve communication and collaboration between healthcare professionals (Poore & Cooper, 2020).

Our interprofessional academic team developed 'IPE Ward-for-a-Day'; an innovative, large scale, interprofessional, extended-simulation aimed to prepare students for the realities of practice. In July 2023, ACU students (n=2300) on six campuses from nursing, occupational therapy, physiotherapy and speech pathology participated in the IPE Ward-for-a-Day simulation that unfolded over 6, 3-hour shifts. Final or penultimate year students enacted their professional roles as they managed a variety of patients within an acute care setting. 1066 participants completed the pre simulation survey. 517 completed all three tools of the post simulation survey. Pre-and Post survey data revealed positive experiences for students undertaking the simulation.

Key words: Simulation, Immersion, Acute care, Pre-practice, Communication

### Flow chart for heavy flow: A brief educational intervention for heavy menstrual bleeding management in Australian General Practice trainees

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<sup>1</sup>*The University Of Notre Dame Australia*

#### **Background:**

Heavy menstrual bleeding is common, and causes iron deficiency, anaemia, and reduced quality of life. General practitioners prescribe low rates of the most effective medications for heavy menstrual bleeding, such as tranexamic acid (1). This study investigated whether a brief educational intervention in General Practice (GP) trainees improved their evidence-based management of heavy menstrual bleeding.

#### **Methods:**

This is a quantitative, brief educational intervention study with non-randomised parallel arms. The intervention group received training and a flow chart regarding heavy menstrual bleeding management. Effectiveness was analysed through pre and post intervention surveys of all participants. The survey included a clinical vignette multiple choice question where the evidence-based prescribing option was 'tranexamic acid'. The primary outcome measure was change in tranexamic acid prescribing in the vignette. The secondary outcome measures were self-reported change in heavy menstrual bleeding management and confidence.

#### **Results:**

The intervention group were significantly more likely to change their answer to tranexamic acid than controls ( $n=20/54$ , 37.0% vs.  $n=12/47$ , 25.5%,  $p=0.002$ ), and to increase in management confidence ( $n=32/54$ , 59.3% vs  $11/59$ , 18.6%,  $p<0.001$ ). After logistic regression, the intervention group were 8 times more likely to change their heavy menstrual bleeding management (OR=8.16, 95% CI 7.27-9.04). Seventy-nine percent of participants referred to the flow chart in consultations, and 79% of participants reported it was very or extremely useful.

#### **Discussion:**

This brief educational intervention was effective in changing GP trainees' management of heavy menstrual bleeding. This supports its further use to promote evidence-based management of heavy menstrual bleeding in general practice. Prescribing effective medications in general practice would reduce iron deficiency, anaemia, and improve women's quality of life.

#### **References**

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## General practice trainee, supervisor, educator, and student perspectives on the transition into postgraduate training

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\* This work is part of a PhD examining the GP trainee experience of transitions towards independent specialist practice.

### Introduction/Background

Transitions are a period and a process, through which there is longitudinal adaptation in response to changing circumstances in clinical practice and responsibilities (1). While the experience of the transition in medical student learnings and in hospital-based specialty training programs are well-described and researched, the experience of transition from hospital to community-based general practitioner (GP) training has not been described comprehensively (2).

We aimed to identify positive and negative formative experiences of transitions in GP training as enablers and barriers to successful transition and their impacts on personal and professional development.

### Methods

PubMed and MEDLINE databases were searched in June 2023 with no date limits for empirical studies on the transition experiences of GP into, and through, training. Of 1543 retrieved records, 76 were selected for data extraction. Based on socio-ecological and multiple and multi-dimensional theories of transitions, data were organised into contextual themes: physical, psychosocial, organisational cultural, and chronological experiences of transitions.

### Results/Evaluation

Our findings describe both positive and negative experiences which are context-dependent. Uncertainty is a significant modulator of factors contributing to negative experiences, as is time. Some initially-negative experiences may become more positive with time. Identification of the inflection points that represent shifts from negative to more positive experiences help moderate expectations for learning and performance at different stages of training.

### Discussion

Challenges in training can either be developmental, contributing to professional identity formation and clinical competency, or detract from learning and potentially contribute to negative experiences and their consequences such as burnout and attrition from training programs. These findings will assist future research in identifying predictive factors of positive and negative experiences of transition and may strengthen existing and nascent GP training programs whilst also promoting the transferability of findings to other community-based specialty training programs.

### PEARLS Additional Information

Understanding the impact of uncertainty on training, clinical reasoning, decision making and changes with time are important in planning curriculum and support of trainees. Dr Tran and co-authors are currently developing a GP-specific consultation model to provide a framework for further exploration of uncertainty in training.

## Further questions for exploration

- Is tolerance of uncertainty mutable? How can this be investigated and potentially mitigated for, or taught to, GP trainees?
- What role does uncertainty have on modulating clinical reasoning and decision-making processes?
- What factors or processes define the tipping point between the formative struggles from the transition process that advance learning and adverse struggles that impede learning and development in postgraduate education?

## References

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## Allied health students in residential aged care: attitudes, experiences, and impact

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### Introduction/Background

Australia's population is ageing, and workforce issues are facing the aged care sector.<sup>1</sup> Education providers must position health professional graduates with the capabilities to deliver care to older people. Exposure to aged care experiences as a student may also encourage future workplace choices in the sector.<sup>2</sup> However, allied health professional student placements in residential aged care (RAC) are not commonplace, and there is limited evidence that explores students' attitudes to aged care placement learning experiences.<sup>2</sup> The aim of this study was to examine the attitudes, experiences, and impact of a RAC placement on student dietitians, occupational therapists and speech pathologists.

### Methods

Purposeful sampling was used to recruit fourteen students who had a placement experience in RAC for 14-18 days in NSW or Victoria. Each student completed a demographics questionnaire, then an interview before and after the placement, or a focus group after the placement. All data collection was facilitated via Zoom, and verbatim transcripts were analysed thematically.

### Results/Evaluation

Prior to placement students perceived RAC as a safe learning environment, however they had concerns around their role and the legitimacy of learning in the absence of consistent allied health practice modelling. Students in all professions were able to build self-confidence and practice skills that could be applied to future placements, and perceived that they had, or could, impact the quality of care provided to older people. The requirement to self-manage learning under a limited supervision model was embraced by some students, but was a challenge for others.

### Discussion

Placement experiences in RAC are a legitimate learning opportunity for allied health students to develop capabilities to work with older people, and may positively impact on quality of care and the RAC workforce. Students could foresee the aged care sector as a potential employment option following the placement experience.

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1. Royal Commission into Aged Care Quality and Safety. Final Report: Care, Dignity and Respect. Commonwealth of Australia. 2021.
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## The "after effect": university academics support clinical supervisors teach clinical reasoning to students

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<sup>1</sup>*The University Of Melbourne*

### **Introduction/Background**

Health professional students gain clinical competency by “learning theory” and then seeing patients in the clinical environment with a clinical educator. Academics put a great deal of effort into preparing students for clinical work however opportunities to enhance student clinical reasoning skills after clinics we believe are underutilized. This study focussed on enhancing after placement academic interaction with students to encourage clinical reasoning skill growth.

### **Methods**

A preliminary survey of third year optometry students (n=47) asked students to rank the areas of clinical reasoning that they felt need most work moving into fourth (final) year. Students clearly identified evaluating outcomes and implementing interventions as their main areas of difficulty. A study exploring whether teaching clinical reasoning skills after placement back in the University setting improves student clinical acumen will run in Semester 1,2024.

### **Results/Evaluation**

In this study students in the intervention groups will use their clinical experiences to explore the art of clinical reasoning. Evaluation by survey, interview and review of clinical results will compare how the intervention group compares to a control group (n=30) in clinical reasoning skills.

### **Discussion**

This work will help demonstrate whether an enhanced after placement intervention in final year optometry students enhances clinical reasoning skills. The approach if successful could be replicated in other health disciplines.

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## General practice registrars' practice in outer metropolitan Australia: A cross-sectional comparison with rural and inner metropolitan areas

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### Introduction/Background

General practice training in outer metropolitan (OM) areas contributes to patients' access to care. Differences in clinical practice and training in rural versus urban areas have been established, but less is known about OM versus inner metropolitan (IM) differences - if they offer a trainee learning experience of populations with distinct demographics and healthcare characteristics. This study sought to identify the characteristics and associations of general practice training in NSW and ACT OM areas, compared to IM and rural areas. It was hypothesised that outer metropolitan areas would offer a unique and educationally-rich learning environment for GP registrars.

### Methods

Cross-sectional analyses of data (2016–2020) from the Registrar Clinical Encounters in Training ReCEnT) study, an ongoing cohort study of Australian GP registrars' in-consultation clinical and educational experience and behaviours were performed. Multinomial logistic regression assessed associations of rural/OM/IM practice location with registrar and practice factors, patient factors, consultation content factors, and consultation action factors.

### Results/Evaluation

1,308 registrars provided data from 177,026 consultations. For several variables, there was evidence of a gradient of associations across rural/OM/IM areas. Experience of care of older patients and Aboriginal and/or Torres Strait Islander health were more likely in OM than IM areas. Care of patients from non-English speaking background was more likely in OM than in rural areas. Possible markers of health care access (specialist referrals, and pathology and imaging requests) were less likely in OM than in both IM and rural areas.

### Discussion

OM areas are distinct (and educationally rich) clinical learning environments (1), with distinct demographic characteristics and seeming healthcare access limitations (2) with less ordering of imaging studies, referrals to specialists and pathology testing. This finding has implications for workforce support and health resource allocation.

### References

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## Congress Graduate Program: Education and Innovative Pathways

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<sup>1</sup>Central Australian Aboriginal Congress

The Congress Graduate Nurse Program (The Program) was initiated as a response to the chronic nurse workforce shortage in the Northern Territory (NT), characterised by a turnover rate of 154%. It stands as the first of its kind in the NT, offering a unique career pathway for graduate nurses exposed to remote area and specialised primary health care roles. Situated in Alice Springs, the program is delivered by a dedicated team facing challenges common to remote workforces.

### **Methods:**

Inaugurated in 2020, prior to the COVID-19 pandemic, the Program has evolved significantly. Interprofessional advocacy by nursing and medical leadership secured funding. The education and senior clinical leadership have proven exceptional role models. Co-design and collaboration with internal and external partners, including NT Health, universities and microcredential providers, have created a tailored curriculum and mentorship and delivery model.

### **Results/Evaluation:**

To date, 20 nurses have joined the program, with 11 participants remaining in Congress, and another five taking up primary health care roles in Central Australia. The true value lies in qualitative indicators, where graduates form strong connections to Central Australia, experience personal and professional growth, and display a thirst for learning and new skills. Feedback from mentors, managers, and the sector underscores their extensive capability, knowledge and skillsets, especially in cultural responsiveness. The program also fosters a workplace learning culture, nurturing emerging leaders who go on to mentor and take on advanced healthcare roles.

### **Discussion:**

The program's success is a result of practical learnings and refined participant selection. Strong program leadership has ensured its integrity, even during staff shortages. The development of clinical education and leadership skills within the team has been pivotal, and partnerships have evolved to strengthen graduate and career pathways.

### Challenges faced by first year nursing students during the transition from face-to-face mode to online learning during COVID 19 period at Fiji National University

**Prasad P<sup>1</sup>**

<sup>1</sup>*Fiji National University*

#### **Introduction/Background**

This study explored the challenges faced by Year 1 Bachelor of Nursing students arising from a change in mode of study from face-to-face to online learning at the Fiji National University (FNU) during the COVID-19 period. An important background to this study is that students were geographically dispersed during this time (as opposed to being on campus in Suva) across Fiji's urban and rural areas.

#### **Methods**

The study utilised a survey approach administered via Survey Monkey. The online questionnaire was mailed out to Year 1 nursing students using purposive sampling as these students had no previous exposure to online learning. Of the 148, 90 students responded (60% response rate). Simple frequency analysis and cross-tabulations formed the basis of this cross-sectional study design.

#### **Results/Evaluation**

The study finds that urban students were advantaged with internet connectivity while rural students either had intermittent connectivity or no connectivity. 88% students revealed that they used their smart phone or tablet for their online studies. Others used internet cafes however, this service too was available intermittently to students during the lockdown period. While 90% of students had knowledge and skills to connect to zoom, other students required university assistance to even connect with zoom lectures. 58% of students were able to connect with zoom lectures on time whereas 42% of the students faced delays. Although FNU had accessibility to Moodle e-learning platform for free, it required students to pay for internet connection which students probably could not afford.

#### **Discussion**

A policy must be developed to support students in times when online learning is warranted. The norms of Fijian culture of communal living and extended families may have resulted in students being distracted in their learning. 79% of students highlighted that online learning was stressful to them, 21% however were able to cope with their learning.

#### **References**

Sharma, B., Nand, R., Naseem, M., & Reddy, E. V. (2020). Effectiveness of online presence in a blended higher learning environment in the Pacific. *Studies in Higher Education*, 45(8), 1547–1565. <https://doi.org/10.1080/03075079.2019.1602756>.

## The Learning Strategies and Inter-Student Collaborations in an Undergraduate Medical Course

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### **Introduction/Background**

Considerable effort is exerted by every medical school to create a curriculum that prepares the students for safe and competent practice. To appreciate how students engage with the curriculum, it is important for faculty to understand the strategies that students employ to learn, and the resources that they use.

### **Methods**

James Cook University is a 6-year undergraduate medical course. The curriculum in years 1-3 covers medical sciences with the content contained in university generated resources, and years 4-6 covers clinical content with students expected to generate their own notes/resources from specific and detailed learning outcomes.

Twelve final year students volunteered for semi structured interviews: seven females and five males (aligned with medical school ratio). Interviews were transcribed and analysed thematically. This presentation focuses on the descriptions of students' learning strategies and resources.

### **Results/Evaluation**

The most common strategy employed in years 1-3 was creation of own notes from university resources, particularly lecture slides. For all students, a change in strategy occurred somewhere between years 2-4, and, by years 4&5, most students were using other students' notes: either from an online drive available to most students or from personal relationships. They updated and modified the material to fit their learning needs. Almost all students interviewed used ANKI to assist with memorisation of the large content, again, mostly by years 4&5. Although some students created their own ANKI flashcards, many utilised decks created by other students. Many students used online question banks, with some students sharing subscriptions. Students also compiled questions that they remembered from exams to collate "past papers," made available to students in the "Google" drive.

### **Discussion**

This research uncovered a rich network of student academic collaboration and support, particularly student-generated resources. These findings will assist faculty in providing curricular opportunities to support students in educational development.

## Collaborative poetry as a tool in the development of self-awareness and empathy in an undergraduate nursing course

**Davis K<sup>1</sup>**

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### **Introduction/Background**

Academic and clinical educators desire an invigorated learning space, that exemplifies effective pedagogy including experiential learning. The antithesis of a feverishly delivered PowerPoint, the 'flipped classroom' involves deliberate decluttering and redesign of the teaching space, to enhance engagement with content and creative thinking (Ozbay & Çinar, 2020). But how do we practically 'flip' classes to demonstrate the 'keys to teaching excellence'? (Goode, 2021). This presentation describes the integration of various poetry activities in an undergraduate nursing course. The aim of the innovation is the development of reflective practitioners who make sense of their own feelings, their professional practice, and episodes of care.

### **Methods**

Within the safety of the classroom, poetry activities include co-construction of collective poems, 'found' poetry (crafted from students' words), ekphrastic poetry (about an object) and review of poems by health professionals and consumers. Patients' use of health metaphors is also explored so that students develop skills for responding to these appropriately.

### **Results/Evaluation**

Students provided written evaluation of the course and poetry activities, describing the courage and self-awareness that these activities demanded and fostered. Anecdotally, learners 'cherish' their poems, some reading them aloud ahead of their first day in an aged care facility, carrying them in their pocket or laminating them. The poetry has become a vehicle for active identification of feelings, that then informs empathic care. These activities are sustainable and cater for different learning styles.

### **Discussion**

It is hoped that this presentation will inspire delegates to expand their own creative toolbox, to include poetry activities. Discussion will include challenges encountered, including anonymity, ownership, and personal courage. This work is important as it is transferable to other settings as a means of 'flipping the classroom' into an interactive space, in the interests of the facilitation of learning.

### **References**

Goode, C. (2021). An excellent adventure: Investigating the stories of Tertiary Teaching Excellence awardees. (Doctoral thesis, Otago Polytechnic). <http://hdl.handle.net/10652/5480>

Ozbay, O. & Çinar, S. (2021). Effectiveness of flipped classroom teaching models in nursing education: A systematic review. *Nurse Education Today*, 102, 1–16

5 Key words to categorise the topic - poetry, empathy, gerontology, reflective, experiential.

## TEAM- Telepractice Education and Interprofessional Module

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### Introduction/Background

Telepractice and simulation combined is becoming an innovative model of clinical education in speech pathology with positive growing evidence in the literature. One study showed increase to student confidence across all domains of communication, assessment, and management (Howells et al. 2019)

Interprofessional education using simulation engenders enhanced understanding of the knowledge of Speech Pathology students' own roles and those of other disciplines and enhanced confidence with their own level of knowledge which leads them more confidently to future clinical placements. (Mills et al, 2019). Telepractice is a skill that needs to be explicitly taught to our students and there is a need to include a pedagogical framework that supports learning and teaching of allied health to deliver telepractice services (Overby and Baft-Neff, 2016) including the use of synchronous and asynchronous communication via tele-methods. There is much less evidence combining all three approaches in teaching and learning as well as for authentic assessment.

The aim of this project was to explore the effectiveness of a **telepractice, interprofessional clinical simulation** module of team community assessment and intervention for an adult with a progressive neurological condition with specific goals of evaluating students' perceived competence and confidence in domains of telepractice, interprofessional working, clinical and communication skills.

### Methods

25 students (across 4 allied health disciplines) participated in two TEAMs. A mixed-method research design will be used to analyse student perceptions of confidence and competence in the four domains of telepractice, interprofessional working, clinical and communication skills. Early data analysis has shown increases in both student's confidence and perceived knowledge and skills in the four domains.

### Discussion/Results/Evaluation

The TEAM module is anticipated to be a viable means of teaching and learning and for authentic assessment of telepractice, clinical, professional and interprofessional skills and knowledge (and attributes) for allied health, pharmacy and exercise physiology students and has the potential to be expanded into other disciplines such as psychology and nursing.

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## Problem Based Learning - Online versus real Life, is there any difference?

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<sup>1</sup>Monash University Malaysia

### Objectives:

Problem-Based Learning (PBL) was originally introduced to provide a student centred pedagogy. Utilising real-life problems to promote critical thinking, self-directed learning, which enhances problem-solving skills through group discussions, ultimately to recapitulate previous and upcoming lectures. A literature review was done to compare the effectiveness of online PBL versus face-to-face PBL.

### Methods:

An extensive search was done to identify relevant studies published on PubMed, Elsevier and Taylor & Francis Online databases. Using phrases such as, 'Differences between online PBL and face-to-face PBL' and 'Online vs face-to-face PBL'. Initially, 2,131 articles which dated back to March 2011 were identified, which were then screened using predetermined criteria. Our inclusion criteria were articles involving undergraduate students with medical-related backgrounds (nursing, population health, pharmacy and medical students). Our exclusion criteria were articles based on postgraduate students, those with non-medical backgrounds, comments, editorial letters and non-English papers. After application of the aforementioned criteria, we retrieved 7 articles which were related to our review topic.

### Results/Evaluation:

Leavy *et al.* 2022 reported that, there was an increase in the mean "Final Unit Mark" for online students (2018 =  $76.3 \pm 6.2$ ;  $p = 0.007$ , 2019 =  $80.2 \pm 4.6$ ;  $p = 0.001$ ) when compared to face-to-face students (2018 =  $69.1 \pm 9.9$ ;  $p = 0.007$ , 2019 =  $73.5 \pm 8.1$ ;  $p = 0.001$ ). Furthermore, Özöztürk *et al.* 2023 also shared similar results (Online:  $77.35 \pm 18.63$ ; Face-to-face:  $67.00 \pm 20.67$ ). However, the latter failed to prove its significance.

### Discussion:

Limitations of our review include lack of data on the frequency of PBL sessions mentioned. Moreover, the study designs were heterogeneous with very few "high-validity" papers published and some of the available articles presented insignificant data.

### Keywords:

Problem-based Learning, Online PBL, Online problem-based learning, Face-to-face PBL, Undergraduate

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### Implementing Interdisciplinary Death Education for Medical Students

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<sup>1</sup>The University Of Melbourne

#### **Introduction/Background**

There is a recognised need for high-quality death education for medical students in order to support physician welfare and improve end-of-life care outcomes for patients and their families<sup>i</sup>. This paper describes the implementation and preliminary outcomes of a new elective subject stream focused on death and dying within the redesigned Doctor of Medicine course at The University of Melbourne.

#### **Methods**

The goal of this subject design project was to provide students with a holistic introduction to death and dying in contemporary Australia, and to encourage them to recognise their part in multidisciplinary 'deathcare' as well as 'healthcare' teams. The design team was radically interdisciplinary, incorporating perspectives from geriatrics, paediatrics, palliative medicine, cultural anthropology, linguistic, and theology. Content delivery and assessment tasks focused on de-centring biomedical knowledge and learning from other professionals, including nurses, funeral directors, and religious officials.

#### **Results/Evaluation**

Two electives, 'Lifting the Lid' and 'When is dead really dead?', are now offered in the 1<sup>st</sup> and 2<sup>nd</sup> years of the Melbourne medical degree, with planned clinical and research pathways for later years. Now in their 3<sup>rd</sup> year, the subjects have received consistently high enrolment rates and evaluation scores, and produced additional outcomes (media reporting, establishment of student-led NGOs, etc.). An evaluation program will be implemented in 2024 utilising the Multi-Dimensional Fear of Death Scale<sup>ii</sup> and other scales.

#### **Discussion**

Dismantling taboos, delivering knowledge, and training professional skills around death and dying can be successfully implemented in the earliest stages of medical education. Students are eager to enrol in these courses and rate them highly. Such anecdotal appraisals will need to be evaluated formally before recommending broader implementation of this program nationally.

#### **References**

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<sup>ii</sup> Lester, D., & Abdel-Khalek, A. The Collett-Lester Fear of Death Scale: A correction. *Death Studies* 2003; 27(1): 81–85.

## Principles for the replication of rural interprofessional education (IPE) programmes

**McKinlay E**<sup>1</sup>, Brown M<sup>1</sup>, Beckingsale L<sup>1</sup>, Doolan-Noble F<sup>2</sup>, Garnett A<sup>1</sup>, Pullon S<sup>1</sup>

<sup>1</sup>University Of Otago, <sup>2</sup>Curtin University

### Introduction/Background

Rural IPE programmes are expensive and complicated to establish and are often difficult to sustain. Yet successful delivery of interprofessional education (IPE) in rural settings can support undergraduate health science and social care students to achieve interprofessional collaborative practice competencies plus grow the rural workforce. The Te Tai o Poutini rural IPE programme in Greymouth, Aotearoa New Zealand (NZ) began in 2021 and is modelled on the long established Tairāwhiti IPE programme, Gisborne, NZ. Although both programmes share common features, the local context has required different development, implementation, and enhancement.

### Methods

We identified principles for replication using an analysis of the programme set-up meeting notes, data collected for an external evaluation, and insider knowledge.

### Results/Evaluation

Six principles may be used to inform the establishment and implementation of future rural IPE programmes: 1. Allow long lead-in time to engage with all the networks, 2. Employ local IPE staff to support setting up local resources, 3. Determine a sustainable number of students according to the local context, 4. Undertake a rigorous evaluation 5. Expect each programme to take time to establish, to bed down and to yield results 6. Allow each programme to develop its own flavour.

### Discussion

Replicating a rural IPE programme, exactly from another may not lead to an enduring programme. Instead, the use of principles which allow for contextual and locational differences, whilst maintaining core underpinning structural elements, may lead to locally embedded and sustainable programmes.

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# Serendipitous and Meaningful Cross-Program, International, and Interprofessional Collaborations for Instruction in Climate and Health

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<sup>1</sup>Monash University, <sup>2</sup>University of Montana, <sup>3</sup>University of Colorado Anschutz Medical Campus, <sup>4</sup>University of Melbourne

## Introduction/Background

Health care training programs worldwide are challenged to include climate health in their curricula. Traditionally, programs address new curricular elements in isolation – with each program setting goals, creating instructional materials, assessing learning, and evaluating effectiveness on their own. Social, cultural, and funding factors can serve as barriers to powerful collaboration. The aim of this project was to cultivate innovation by creating and evaluating multi-modal, interprofessional climate health instruction in 5 programs, 3 professions, and 2 countries.

## Methods

In 2023, the Human Health and Climate Change elective courses recruited medical students (University of Colorado), nursing students (Montana State University), and pharmacy students (Monash University, University of Colorado, University of Montana) connecting purposefully. The format included 3 overlapping elements –intensive (medicine), seminar (pharmacy), and collaborative online international learning/COIL (pharmacy and nursing). Course objectives encompassed technical aspects of climate and health, interprofessional roles and responsibilities, and socially accountable deliverables for promoting planetary health.

## Results/Evaluation

We used the Kirkpatrick Framework<sup>2</sup> to evaluate reaction, learning, and behaviours. Participants reported increased confidence in engaging in self-directed learning to increase knowledge of planetary health topics (96%) and in interacting with people from other countries (92%). They reported a “great amount” of learning from peers (75%), other professions (60%), and about climate actions in other countries (80%). Medical and pharmacy students submitted to the global Planetary Health Report Card. Nursing and pharmacy students created artefacts intended for the Global Consortium on Climate and Health Education resource bank. Lead educators described feeling connected and supported to overcome logistical barriers at their home institutions.

## Discussion

Completing course development, implementation, and preliminary evaluation as an interprofessional, multi-country team was feasible, valuable, and powerful. Student motivation was high, and the course results are useful beyond this cohort. Additional results from the 2024 offering will be included in the presentation.

## References

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2. Kirkpatrick DL. (1994) *Evaluating Training Programs: the Four Levels*. San Francisco: Emeryville, CA: Berrett-Koehler; Publishers Group West [distributor].

## Currents, rocky rapids and whirlpools: a programmatic evaluation of the Ways of Knowing program

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<sup>1</sup>University Of Melbourne

### Introduction/Background

Developed in 2020, the 'Ways of Knowing' program explores cultural safety and collaborative practice as a *"learning journey from, with and about each other that flows like river "ebbing at times, then gathering strength and flowing together"* (Andrews, 2017). Now in its fifth year, and awarded a University Education Excellence award, all entry-to-practice health professionals within the faculty participate in the program (11 disciplines, 1500 students). This research was designed to explore the impacts of the program.

### Methods

Four professionally and culturally diverse academics conducted the research, incorporating interprofessional and interface education research approaches. A Logic Model (Kellogg Foundation, 2004) identified key assumptions, resources and activities for both staff and students. Short term outcomes were investigated using student surveys (Phase 1, n=279), and student and tutor interviews (Phase 2, n=14). Longer term outcomes were investigated via planning team member surveys (Phase 3, n=11) and observable system changes over 5 years.

### Results/Evaluation

The key assumptions, resources/inputs and activities identified in the Logic Model allowed for a systematic and programmatic analysis of the range of factors that shaped the learning experiences.

Short- and long-term outcomes suggest that both staff and students experienced a steep learning trajectory, and we suggest that this mutual vulnerability, and the extension that comes from co-construction of new meanings, is part of the strength of the program.

Longer term outcomes included observed individual and systems level changes including an increase of First Nations positions and staff within teaching teams across the Faculty.

### Discussion

The evaluation highlighted the intertwining of learnings across, and beyond, the program. We identified the step trajectory of learning (currents), discomfort (rocky rapids), and whirlpools (dissonance) within the "river model" of learning.

As a curriculum intervention, Ways of Knowing is progressing a 'ways of doing' shift towards more collaborative and culturally safe learning environments.

### References

*Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.*

Andrews, S. (2017). Many ways learning. Indigenous curriculum framework. School of Health Sciences, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne.

W.K. Kellogg Foundation. (2004). Logic Model Development Guide.

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## Programmatic evaluation of interprofessional education: a quality improvement tool

Symes A<sup>1</sup>, Pullon S<sup>1</sup>, **McKinlay E**<sup>1</sup>

<sup>1</sup>University Of Otago

### Introduction/Background

As IPE increasingly moves towards fully embedded spirals of learning across degree programme curricula, effective mechanisms for continuous quality improvement are paramount to meet the requirements of contemporary health professional students, staff, curricula, and regulatory bodies.

From 2016, IPE learning activities (LAs) grew rapidly, engaging multiple health professional programmes at University of Otago. This mobilised development of an online register to register and annually (re-)accredit LAs for a quality-assured curriculum.

### Methods

Work over 15 months 1) assessed proprietary software options, with REDCap selected to support complex question design, repeatability, scheduling, and pre-population in a customised survey instrument to gather accreditation information; 2) ran a pilot accreditation round; 3) analysed preliminary data to evaluate the instrument's suitability for quality improvement purposes; 4) launched the instrument for routine use.

### Results/Evaluation

Of 13 LAs piloted, seven were accredited, with the first six supplying a preliminary data set for analysis. Three LAs were improved – including one comprehensive redesign - and three discontinued. The instrument demonstrated its strength in facilitating constructive alignment of any LA's stated aim, competency domains, learning outcomes, and chosen assessment approach.

### Discussion

The design effort succeeded, at low cost, in producing a simple and effective quality assurance tool to streamline individual LAs to benefit students' learning. For discipline-specific professional accreditation, the tool provides evidence that students are undertaking high-quality IPE. Using the tool routinely has created the foundation for further work to track every student's IPE attainment across their degree, and for competency-based programmatic evaluation. This experience suggests an accessible path way for IPE LA accreditation by other institutions.

### References

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## Bye-Bye Burnout: Interprofessional Applicability of a Near-peer self-care program

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<sup>1</sup>*Curtin University, <sup>2</sup>Silverchain*

### **Introduction:**

Healthcare professionals frequently experience burnout, characterised by emotional exhaustion, cynicism, and professional inefficacy; this is also experienced by student healthcare professionals and can lead to disengagement from learning (1). A range of self-care strategies can assist in preventing or reducing the impact of burnout, however, implementation is challenging(2). In higher education, there is evidence that near-peer mentoring can be more effective in reducing stress and enhancing support networks than faculty-based mentoring. Based on this, a pilot near-peer mentoring program (Bye Bye Burnout) was co-created with final-year occupational therapy students to provide a nearpeer self-care intervention.

### **Methods:**

Sequential exploratory mixed method was used to evaluate the program from mentee (n=42), control (n=25), and mentor (n=13) perspectives. The Maslach Burnout Inventory – Student Survey (MBI-SS) and Mindful Self-Care Scale (MSCS) were used to measure burnout and self-care frequency respectively. These were administered at two time points, pre- and post-program. Thematic analysis of focus groups explored mentee and mentor perspectives of the program.

### **Results:**

Quantitative results for mentees showed a significant improvement in the practice of self-care, an improvement in professional efficacy, and a decrease in exhaustion. The control group reported increased burnout and decreased use of self-care strategies. Qualitative result themes included connection through near-peer mentorship and development of self through personal growth. Challenges in program implementation included supporting student attendance during a busy academic semester and scheduling the program concurrent with fieldwork placements.

### **Discussion:**

The Bye-Bye Burnout near-peer mentoring program was a proof of concept in a single profession, where the program was successful in developing self-care skills which reduced burnout and encouraged student connections. The program may have broader applicability to other student healthcare professionals.

### **Issues or questions for exploration:**

Supporting our students and the future healthcare workforce to practice self-care with a view to burnout prevention is an ongoing priority. We would like to explore the following with an interprofessional audience:

1. What are your experiences of student burnout and how does this impact your profession?
2. How, or is self-care currently taught within your discipline?
3. What is your perspective on the need for self-care within your discipline?
4. How could Bye-Bye Burnout be modified or adapted to implement with your students?

During the session we will share the 'Bye-bye Burnout' program, including its further development during the current iteration.

## Why am I talking to a Computer Program? : What should we consider when we utilise AI technology in Health Communication Skills Learning and Teaching?

**CHAN K<sup>1</sup>, Humphreys L<sup>1</sup>, Nolan M<sup>1</sup>**

<sup>1</sup>*Griffith University*

*ANZAHPE PEARL Using AI in Communication Skills Learning and Teaching 2024 LH KC*

### **Introduction/Background**

Artificial Intelligence (AI) and Machine Learning (ML) are developing rapidly and research shows that these are making a breakthrough in communication skills training for health care professionals (1). AI and ML in communication skills learning brings the advantages of making training more cost effective and less time consuming (1).

For over 16 years, the Griffith University Doctor of Medicine (MD) Communication Skills and History Taking Program embeds simulated learning (using peer and professional actors) to facilitate students communication skills development. The Program also has a strong emphasis on contemplative pedagogy to support students to consider the value-laden aspects of their profession as they “become” doctors.

With the increased application of AI and ML in education more widely, we are interested in exploring the following questions to gain an understanding of the attitude and approach of health education professionals towards AI and ML specifically in communication skills learning and teaching.

### **Methods**

Through a Personally Arranged Learning Session (PeArLS), we would like to have a discussion with educators and providers who are interested in the topic to harness their thoughts and ideas. Results We aim to produce an opinion piece after the discussion to share the insight and conclusion of the discussion with a wider audience.

### **References**

Stamer T, Steinhäuser J, Flügel K. (2022). Artificial Intelligence Supporting the Training of Communication Skills in the Education of Health Care Professions: Scoping Review. *Journal of Medical Internet Research*. 25:e4331 <https://www.jmir.org/2023/1/e43311> DOI: 10.2196/43311

### **Issues/Questions for Exploration**

1. What are your thoughts generally in using AI programs for Communication Skills teaching for health professionals?
2. Is your institute using AI programs for Communication Skills teaching for health professionals? Why or why not?
3. Is there interest in forming a community of practice on the use of AI programs in Communication Skills teaching for health professionals?

## Co-designing a strengths-based, heutagogical approach with Neurodivergent students.

**Redpath P**<sup>1</sup>, Wyatt A<sup>1</sup>, Fairweather K<sup>1</sup>, Picard M<sup>1</sup>

<sup>1</sup>*Flinders University*

### Introduction/Background

Engaging with neurodivergent (ND) students in higher education (HE) provides an opportunity to co-design and implement educational approaches and practices that are strengths-based, heutagogical and enhance experiences and outcomes (Friedman, et al 2023). Harnessing the student-voice through participatory research has the potential to enhance ND flourishing in HE. (Pellicano & Heyworth, 2023).

### Methods

ND students completed an online questionnaire (n=241) or participated in an interview (n=6). Students (18+ years old) were eligible to participate if they were formally or informally identified as neurodivergent and had studied at an Australian university within the last 5 years. A mixed methods approach was used to analyse the data. Initial interpretations suggest that there is a fundamental issue with communication between students and staff that is a barrier to accessing support and student success. The next stage of the project is to conduct focus groups with ND students to better understand needs, enablers and barriers to positive educational experiences and outcomes.

### Results/Evaluation

The project is in-progress with preliminary data collected reporting a range of relevant and valuable insights. Notably, 51% of the students who responded are engaged in health and medical degrees (medicine, clinical sciences, biomedical sciences and counselling and psychology). Those who responded indicated that there are a range of processes and practices that enable and exacerbate their experiences and outcomes throughout their studies. Some of the respondents stated that:

“It is hard to self-advocate at the best of times and when things get hard it becomes harder to self-advocate.”

“... I don't think there is a good perception or knowledge about ADHD out there.”

### Discussion

Many ND students are engaged in health and medical degrees. Increased representation and diversification are needed to address disparities and inequities and bring diverse perspectives and approaches to care and research. Through participatory research we can build, implement and evaluate ways that support ND students' success, wellbeing and improved educational outcomes

### References

Friedman, Z. L., & Nash-Luckenbach, D. (2023). Has the time come for Heutagogy? Supporting neurodivergent learners in higher education. Higher Education.

<https://doi.org/10.1007/s10734-023-01097-7> 1 Pellicano, E., & Heyworth, M. (2023). The Foundations of Autistic Flourishing. Current Psychiatry Reports, 25(9), 419–427.

<https://doi.org/10.1007/s11920-023-01441-9>

## What should we do about prizes, scholarships and commendations when moving to a system of assessment aimed at collaborative learning for competency?

**Tweed M<sup>1</sup>**, Pather N<sup>1</sup>

<sup>1</sup>*Academy For Medical Education*

### Introduction/Background

Many healthcare professional courses are moving towards systems of assessment, which may be programmatic, primarily designed to guide collaborative learning and to inform non-graded pass/fail decisions related to standards for competency. The potential benefits of these changes include improved learning and preparedness for learning in practice, improved rigour of pass/fail progression decisions, and promoting student collaboration and well-being (1,2). At the same time prizes, scholarships and commendations are awarded. It is accepted that healthcare professionals should not be motivated by adulation associated with awards, but there are tangible benefits. Many are valued as they include financial assistance to support continued learning, and provide additional endorsed evidence of performance (other than 'non-graded pass') which may be used for, or even required for, subsequent applications. Anecdotally, a solution used has been unpublished data on student performance, held 'in the background'. The storage and uses of such assessment data and student perceptions of potential uses are likely to undermine the potential benefits of collaborative learning for competency. Lastly, it is not appropriate to use data from a system designed, implemented and assured for one set of purposes (to guide collaborative learning and inform pass/fail decisions of competency) to produce derived data for another set of purposes (to inform decisions on awards). Defending such data usage to the scrutiny of challenge could prove difficult.

### Methods

The attendees will discuss the place of awards and how the tangible benefits can be met. If we need a system separate to that related to learning for competency, how can the problems be mitigated? What should separate systems look like?

### Results

The session will provide a forum for sharing issues and solutions related to these challenges.

### Discussion

This problem is common to many courses and the discussions started in the session will help find solutions.

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### Multi-perspective, interactive short-videos for undergraduate teaching of fetal development

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<sup>1</sup>*Department of Obstetrics and Gynaecology, Monash University and The Ritchie Centre, Hudson Institute of Medical Research*

#### Introduction/Background

The anatomical and physiological concepts related to the placenta and fetus are very different from adult physiology and anatomy, and often challenging for undergraduate students, unless they can participate in hands-on dissections. However, animal and human cadaver dissections are limited by ethical constraints and expense. Pre-recorded videos in higher education are often used, but they employ single-perspective approaches and provide few opportunities for interactivity. Therefore, we investigated the perceived effectiveness of utilising an online module, made of a series of multi-perspective interactive videos, for undergraduates studying fetal development.

#### Methods

We adapted our hands-on dissection of a pregnant sheep uterus and fetus practical, for third year students, to a fully online module (1). Briefly, a story-board script and four cameras were used to produce multi-perspective videos embedded with questions, annotations, and different media types. From 2020 to 2023, we analysed 221 anonymous survey responses on student perceptions using descriptive statistics and qualitative exploratory approach.

#### Results/Evaluation

Students agreed/strongly agreed that 1) the module consolidated their learning (97.2%); 2) interactive components (96.8%) and 3) watching the dissections online (96.0%) were helpful for their learning. Opinions on maintaining the module (54.3%) or returning to in-person practical sessions (45.7%) were split. Over forty percent of students were neutral or believed they would learn more from the online module than in-person. In fact, they stated “*I feel like if I did the prac in person*” and “*I really enjoyed this online module and felt it was so helpful to apply the theory we've learnt*”.

#### Discussion

Students found multi-perspective short-videos to be valuable for consolidating knowledge in fetal development, especially the interactive components and the ability to (re)watch dissections up-close. These findings inform instructional strategies and curriculum development, demonstrating the potential to reduce animal experimentation in teaching while facilitating understanding of complex physiological and anatomical concepts.

#### References

- 1) Falcao-Tebas, F., Ellery, S., Wallace, M. *Development of multi-perspective, interactive short-videos for undergraduate teaching of fetal development: A pilot study* [Conference presentation abstract]. Australian & New Zealand Association for Health Professional Educators (2021), ANZAHPE Conference, July, 2021.  
<https://anzahpe.org/resources/Documents/Conference/2021%20Abstract%20Booklet.pdf>

## The Thought Broadcast: Leveraging podcasts to cultivate innovation in psychiatry training.

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### Background

Demand for accessible learning resources has decreased reliance on traditional formats for distributing medical knowledge, such as journal articles and textbooks. To this end, the trainee editors at the journal *Australasian Psychiatry* developed *The Thought Broadcast*, a bi-monthly podcast tailored for psychiatry registrars to supplement regular journal content.

### Methods

*The Thought Broadcast* podcast series was created and led by a group of psychiatry registrars. The chosen format involved a small panel of 2-3 hosts leading an informal interview with 1-2 guests using a conversational approach. Guests were typically registrars reflecting on their training experiences, or senior psychiatrists with expertise on a training topic such as completing a research project. The overarching goals were to demystify challenging aspects of psychiatry training and humanise the training experience for a registrar audience.

### Evaluation

To date, 18 episodes of the podcast *The Thought Broadcast* have been published covering diverse topics, including: registrars' experiences completing the mandatory research project during training; advice from senior examiners about key assessments; reflections of registrars on unique training experiences or challenges; and providing a platform to discuss changes within the evolving psychiatry training programme. The podcast has achieved a strong level of reach and engagement, in terms of downloads, social media, and promotion at psychiatry conferences.

### Discussion

Podcasts represent a valuable addition to the educational resources available to registrars. *The Thought Broadcast* fills an important gap by covering material that is less suited to the traditional journal format. It provides a convenient and engaging platform for psychiatry registrar voices to be publicised and allows for communication about important training issues to be easily disseminated to registrars. Future directions include recruitment of a broader range of guests and topics, including seeking feedback from listeners for content preferences.

## Assessment design to foster productive collaboration with ChatGPT in postgraduate student written tasks

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### Introduction/Background

Two key perspectives exist on the use of generative artificial intelligence (GAI) like ChatGPT in student assessment: integrity and the misattribution of authorship, and collaboration to enhance productivity. Following the collaborative sentiment, ChatGPT was integrated into a series of assessment tasks designed to scaffold students' informed judgements of how GAI can shape their learning. This study reports on our observations of student performance and assessment functionality.

### Methods

Four assessment tasks were run sequentially, each associated with a tutorial and topic within reproductive endocrinology, with feedback provided between each submission. Students were asked to critique and annotate GAI outputs (task 1 and 2), then to write a 600-word The Conversation-style article based on their critique (task 3). Following a tutorial on prompt engineering, in Task 4 they interacted freely with ChatGPT, writing a 600-word article, which they submitted with their ChatGPT prompt history. Student performance in tasks 3 and 4 were compared using grades and linguistic measures of text cohesion. In task 4 the impact of prompting was analysed by correlating the complexity of the students' prompts with their performance.

### Results/Evaluation

Students (n=27) performed significantly better in Task 3 than 4 ( $p=0.0031$ ), suggesting the introduction of prompting made the task more difficult. Students who used greater prompt complexity, such as providing specific content instructions or asking for feedback on their work, performed statistically better in Task 4 ( $p=0.0375$  and  $p=0.0089$ , respectively), indicating that effective interaction with ChatGPT can improve performance. Some linguistic measures of cohesion also correlated significantly with complex prompt use and higher performance.

### Discussion

Using ChatGPT productively requires skills in critical evaluation, but also skills in prompt engineering, specifically by asking for feedback students extending the use of ChatGPT beyond summative academic feedback to interactive formative feedback to assist the writing process (Dai et al. 2023).

### References

Dai, W., Lin, J., Jin, H., Li, T., Tsai, Y., Gašević, D., and Chen, G. (2023) Can Large Language Models Provide Feedback to Students? A Case Study on ChatGPT, IEEE International Conference on Advanced Learning Technologies (ICALT), Orem, UT, USA, 2023, pp. 323-325, doi: 10.1109/ICALT58122.2023.00100.

### Consensus moderation in undergraduate health professional courses: Are our guidelines fit for purpose?

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#### **Introduction/Background**

Consensus Moderation (CM) processes are prevalent in higher education, particularly in the assessment of written work. CM plays a key role in calibrating teams marking large undergraduate nursing courses and supporting the achievement of equitable and appropriate grades across large student cohorts. Operationalising CM is a skilled academic activity, underpinning the reliability of grades achieved in health professional education activity and requiring institutional support.

#### **Methods**

As part of a quality improvement cycle in a regional university health faculty, an online search was conducted to identify publicly available CM guidelines. A modified AGREE II appraisal tool across five domains was used to systematically evaluate the quality of the seventeen Australian, and ten UK guidelines identified. Two authors reviewed each guideline against the five domains of “scope and purpose”, “stakeholder involvement”, “rigour of development”, “clarity of presentation”, and “applicability”.

#### **Results/Evaluation**

Of the twenty-seven university guidelines identified. “Scope and purpose” were generally well articulated; however, there was a lack of “rigour” and acknowledged “stakeholder involvement” in guideline development, with only two mentioning active consideration of staff perspectives and preferences.

None of the guidelines reported conducting a literature review to inform development. Ninety-three per cent of questions related to “rigour of development” scored “no” or “can’t tell” responses. The “applicability” domain found that only 21% of responses demonstrated the availability of practical tools for implementation.

#### **Discussion/Conclusion**

Using a systematic approach to guideline assessment, this review underscores the need for universities and health faculties to enhance the development of moderation guidelines, particularly with regards stakeholder engagement, rigour, and applicability, to ensure the effectiveness of consensus moderation policies and their successful implementation.

## Trends in health professions education research: Insights and recommendations for future directions

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**Keywords:** Research methodology, philosophical positioning, research priority, quantitative, qualitative

### **Introduction:**

While past studies have separately scrutinised trends in health professions education research (HPER) topics or methodological approaches, a comprehensive understanding of trends in both topics and methodologies from reputable HPER journals remains elusive. This study aims to bridge this gap by analysing trends in topics and methodologies in primary empirical studies published in reputable HPER journals over the past two decades. Through this analysis, we seek to contribute a contemporary understanding of the evolution of research priorities and methodologies within the HPER domain, providing recommendations for researchers, journal editors, and reviewers.

### **Methods:**

Underpinning by relativism and subjectivism and employing a state-of-the-art review approach, this study examined empirical studies published in five Q1 HPER journals (Academic Medicine, Advances in Health Sciences Education, Medical Education, Medical Teacher, and Nurse Education Today) across three sample years spanning three decades (2000, 2010, and 2020). Each study was analysed descriptively to identify its topic area and methodological approach.

### **Results:**

A total of 1126 empirical studies were identified across the three time-points, predominantly from North American and European contexts, with a gradual increase in multi-institutional studies. While some topics, such as effective teaching methods, consistently received attention, others, like the teaching and learning of Indigenous health, received less focus over the years. Quantitative methods dominated followed by qualitative, but many studies lacked key markers of methodological quality (e.g., specifying philosophical positioning).

### **Discussion:**

Based on our findings, we offer three primary recommendations: (1) implement a multifaceted strategy that encourages authors, reviewers, and editors to comprehensively adopt reporting standards; (2) enhance diversity by exploring less-researched areas and utilising methodologies and methods that are less common; and (3) encourage journals to play an active role in cultivating a more representative and globally informed literature by embracing diversity and inclusivity to capture the richness and complexity inherent in HPER.

## APEX- a Novel Approach to Clinical Skills Assessment in an Undergraduate Medical Program

**Lau W<sup>1</sup>**

<sup>1</sup>*Monash University Malaysia*

### **Background:**

Assessments of Clinical Skills as far back as 20 years ago took the approach of assessment of learning. This approach of assessment is analogous to opening a locked door with one purpose - grade the student according to how much they were able to regurgitate from memorised facts. There was no indication whether they understood their mistakes and there was no further direction to guide their subsequent learning.

Research has shown that assessment can impact on the students' learning if it is accompanied by quality feedback - timely, targeted, and non-judgemental. However, the feedback process goes beyond these three words. In addition, we need to consider the parties involved – examiner, candidate and simulated patient. There is a need for specific training on feedback provision and acceptance with the hope that the candidate applies or links the feedback to subsequent learning in a scaffolding manner to maximise benefits from the assessment.

At Monash, we have used the OSCEs (different approaches as discussed by Harden et al in his book – “The definitive guide to the OSCE – the objective structured clinical examinations as a performance assessment”), and CSSEs/OCEs (competency-based assessments. In 2023, APEX (Assessments Progression Examinations) was introduced to the undergraduate medical program from year 2 to 5.

We conducted three APEX in year 2 for a cohort of 130 students. The tasks involved history taking, communication skills and physical examination. Weeming will share her experience on running the APEX (process, challenges, pros and cons) and present perspectives from the examiners, students and simulated patient. At the completion of three Apex in 2023, we noted that it was a good assessment for and as learning. We continue to improve the process following feedback from the stakeholders.

### **Conclusions:**

The APEX is a novel assessment in Clinical Skills that will impact upon students' skills competency.

## How workplace-based assessments and clinical learning environments influence student learning approaches: Insights for optimising learning

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<sup>1</sup>*The University Of Sydney*

### **Background:**

Workplace-based assessments (WBAs) are being increasingly used in competency-based medical education for assessment 'of' and/or 'for' learning. The effectiveness and utility are dependent on user engagement, assessment literacy, tool attributes and learner-educator relationships. We explored students' perceptions of and experiences using WBAs with the aim of understanding how WBAs influence learning and determining strategies to optimise their utility.

### **Methods**

A WBA portfolio, based on junior medical officer core skills, was implemented for final year medical students, in accordance with programmatic assessment philosophy and Australian Medical Council accreditation standards. Using grounded theory methodology, we conducted 6 focus groups of 2-4 students each across 3 rural and 5 metropolitan hospitals. Taking a theory-informing inductive data analysis approach, we used line-by-line coding and constant comparison to identify initial patterns in the data. To interpret the data, we used approaches to learning theory, which identifies deep, strategic and surface learning approaches.

### **Results**

The 15 students' experience of undertaking WBAs varied substantially. In optimal learning environments, students became well-integrated into teams that challenged and supported their learning, valued WBAs as authentic tasks aligned with team expectations, and developed strategic behaviours for maximising learning opportunities and self-regulatory learning habits. When supervisors and teams were less engaged/available, students reported difficulties undertaking WBAs, despite students' strategic approaches to planning and communication. These students distinguished between: "real WBAs", undertaken as directed, observed by supervisors; "hypothetical WBAs", assessed through discussion, when WBAs appeared unfeasible; and "combined WBAs", conflating previous performance, retrospectively approved by supervisors.

### **Discussion**

WBAs provided authentic learning experiences for learners in optimal learning environments, harnessing student motivation and rewarding self-regulation to enable deep learning approaches. In suboptimal environments, where WBA requirements were difficult to meet, students felt forced to take a surface learning approach and were frustrated about adopting behaviours misaligned with their personal learning ethos.

## The impact of improving clinical feedback and encouraging learner self regulation

**Young-gough A**<sup>1</sup>, Woodfield J, Rudland J, Thompson-Fawcett M, Clifford K, Harold F  
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Our final year medical student ward management module (WMM) in surgery integrates students into clinical teams, where students apply the knowledge and skills they have learnt throughout medical school to solve problems while working closely with qualified doctors. In previous course evaluations the course is ranked good or excellent in the majority of categories. However, the lowest scoring category was feedback. The question “The quality of feedback on my progress during the course” was rated as useful, average, or not useful by 61%, 21% and 18% of students respectively. This confirms that approximately 1 in 5 students don’t receive the feedback they need and may sometimes feel neglected [Rudland et al, 2021]. This lack of feedback is a multifaceted problem with structural, staff and student components.

To improve student feedback, we have introduced a package of changes to our WMM. We have focussed on formalising doctor-student mentoring partnerships and educating both students and mentors on key aspects of feedback. Mentors are mainly senior house officers and junior registrars. Their role includes meeting with the student to set goals, helping to co-ordinate five mini-CEX assessments (which are performed by members of the team), performing a mid run student evaluation and encouraging students to seek out learning opportunities. In order to create a more self sustaining mentorship program we have ensured that doctors contributing as mentors will be able to gain education points towards surgical training applications. Mentors will also receive feedback on their teaching. Ongoing WMM assessment includes the course evaluation questionnaire, the MUSIC model of motivation questionnaire and the student feedback literacy questionnaire. These will help to assess if the introduced changes will improve feedback and attitudes that are known to facilitate lifelong learning. Initial results will be presented.

### References:

Rudland, J, Tweed, M, Jaye, C, Wilkinson, TJ. Medical student learner neglect in the clinical learning environment: Applying Glaser’s theoretical model. *Med Educ.* 2021; 55: 471–477. <https://doi.org/10.1111/medu.14424>

**Achieving Research-Ready Medical Graduates – A mixed-methods exploration of medical students’ preparedness to engage in research, after completing a Doctor of Medicine program.**

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### **Introduction/Background**

Medical schools in Australia are increasingly moving towards Doctor of Medicine programs, which must include research training.<sup>1</sup> Additionally, the Australian Medical Council’s accreditation standards require the role of “scientist and scholar” for medical graduates. While medical graduates’ preparedness for clinical practice has been extensively investigated, preparedness to fulfil other roles of medical professionals, in particular preparedness to engage in research, has not been explored. Following the implementation of a four-year research curriculum in the Joint Medical Program (JMP), we sought to ascertain its effectiveness by exploring the learners’ preparedness to engage in research and the observations of curriculum leaders and research supervisors.

### **Methods**

We employed a sequential explanatory mixed-methods approach, within a phenomenological methodology. We administered an adaptation of the Research Attitudes in Vocational Education Questionnaire to a targeted sample of students and staff.<sup>2</sup> Survey findings were used to inform focus group discussions. Qualitative data were analysed thematically and preliminary interpretations generated.

### **Results/Evaluation**

Students and staff concur in highlighting limited preparedness to engage in research. Five areas for improvement were identified: ensuring research training is valued in the JMP; ensuring alignment and frequent spiralling of content taught between multiple years; providing effective course-level direction, considering significant variability of projects undertaken; establishing clear expectations for each student, and providing effective and consistent supervision. However, logistical and educational challenges were noted: the content overload of a 5-year Program prevents further addition of research teaching; the widespread use of collaborative assignments, despite limited validity as assessment of individual learning, is warranted to ensure feasibility of the research curriculum.

### **Discussion**

Our preliminary findings suggest that refinement of the research curriculum and improved vertical alignment is needed. Examining student preparedness to engage in research, including appraisal of postgraduate research activity, is a valuable addition to on going monitoring of graduate outcomes, supporting quality assurance of medical training.

### **References**

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- (2) Griffioen DM. A questionnaire to compare lecturers’ and students’ higher education research integration experiences. *Teaching in Higher Education*. 2022 Feb 17;27(2):185-200. doi: 10.1080/13562517.2019.1706162

## Community-based Dental Education (CBDE): Analysis of Current Practices in Australia and comparison to available evidence

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<sup>1</sup>*University Of Western Australia*

### Background

A substantial body of evidence has placed increasing emphasis on providing clinical experiences for dental students in community-based clinics to supplement training offered in traditional dental school-based clinics<sup>1,2</sup>. CBDE is a dental training approach that blends clinical learning with service-oriented experiences<sup>1,2</sup>. It is a complex system that involves various stakeholders who collaborate to prepare students for independent practice whilst enhancing oral healthcare in underserved areas<sup>1,2</sup>.

The objectives of this research were:

1. To gain insights into current CBDE implementation at Australian Dental Schools and compare to available evidence
2. To assess the challenges faced by dental schools in Australia in implementing CBDE and aspirations for future development

### Methods

1. A mixed-methods study was conducted to provide insights into the implementation of CBDE in Australian dental schools.
2. A Qualitative study utilising Interpretative phenomenological analysis (IPA) explored the challenges faced by CBDE coordinators at Australian dental schools.

### Results

1. Implementation of CBDE appears to be influenced by: level of student involvement, the types of clinics utilised, allocation and length of rotation, student supervision and assessment, pre-rotation preparation and post rotation evaluation.
2. Emerging themes from IPA reflect on various aspects of the educational process in implementing CBDE, including administering programs, funding, the student experience and partner site relationships.

### Discussion

The ideal framework for community-based dental education programs should prioritise establishing effective partnerships with community organisations. It should provide students with hands-on clinical experience in diverse community settings, including underserved areas, to foster cultural competence and a holistic approach to oral healthcare. The curriculum should be designed to address the specific oral health needs of the community and emphasise primary dental care. Continuous evaluation and feedback from both students and community members should be incorporated to ensure the program remains responsive and adaptable to evolving needs.

### References

1. Formicola AJ, Bailit HL. Community-Based Dental Education: History, Current Status, and Future. *Journal of Dental Education*. 2012;76(1):98–106.
2. Mascarenhas AK, Henshaw M. Infrastructure for a Community-Based Dental Education Program: Students and Clinics. *Journal of Dental Education*. 2010;74.

## Pioneering the innovative tertiary-level training of postgraduate physiotherapy students in conservative management of pelvic organ prolapse pessary care.

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### Introduction/Background

A graduate certificate programme incorporating physiotherapy-led pessary care (Conservative Management of Pelvic Organ Prolapse (CMPOP)) has been developed in response to the high prevalence of pelvic organ prolapse, its impact, and only two management pathways being available (conservative care or surgical intervention). Surgery is expensive, invasive with a high failure rate (Daly, 2019). Conservative management via pessaries can be successful but is challenging to execute. Pessaries have traditionally been fitted by gynaecologists, but this practice is increasingly evident in physiotherapy practice. Because pessary management is an emergent, advanced scope of physiotherapy practice, it must be executed at the highest standard.

### Methods

In line with the Australian Health Practitioner Regulation Agency and National Boards Shared Code of Conduct (2022) Section 1.2b, practitioners are required to have 'sufficient training and/or qualifications to achieve competency in a new area'.

The CMPOP course was designed to overcome three challenges:

(1) developing acceptable physical examination processes  
Peer to peer practice including vaginal assessment in pelvic health physiotherapy is accepted industry standard. The Team addressed the challenge of supporting such assessment to be safe via engagement of ethical and inclusive practices.

(2) creating pessary care competency standards  
In order to justify assessment of competence two Team members have led an international project for the development and publication of the world's first physiotherapy pessary competency standards (Neumann 2022).

(3) designing a course for geographically dispersed student cohorts.  
CMPOP is a hybrid training model that ensures equitable access regardless of location.

### Results/Evaluation

Pessary care education has been delivered to almost 150 post graduate physiotherapists nationally. The standard of the course is reflected in high course evaluation metrics, sustained enrolments, influential publications/presentations, multiple university/industry collaborations and recent recognition via 2023 UniSA Citation for Outstanding Contributions to Student Learning.

### Discussion

The CMPOP Team have pioneered the first and only tertiary-level, competency-based physiotherapy pessary care education globally.

### References

Daly, J O (2019) The Australasian Pelvic Floor Procedure Registry: Not before time. Australian and New Zealand Journal of Gynaecology 59(4)

Neumann, P. B., Radi, N., Gerdis, T. L., Tonkin, C., Wright, C., Chalmers, K. J., & Nurkic, I. (2022). Development of a multinational, multidisciplinary competency framework for physiotherapy training in pessary management: an E-Delphi study. *International Urogynecology Journal*, 33(2), 253-265.

## Operationalising quality assurance in rural work-integrated learning: How, when, and why?

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<sup>1</sup>Charles Sturt University

### Introduction

*Work-integrated learning (WIL) experiences are an integral component of health students' learning and preparation for future practice. The notion of what constitutes a high-quality WIL experience has received increasing attention in the literature, and several high-level quality WIL frameworks have been published. Despite the proliferation of these frameworks, there remains a need to understand how elements of quality can be operationalised, particularly in niche settings. This presentation is focused on work undertaken by a group of rural health academics to embed features of high-quality WIL in practice.*

### Methods

*Guided by the work of Mizikaci (2006) our team created minimum standards for WIL design and a program logic that defines evaluation data and accounts for the social, technical, and managerial systems related to the delivery of higher education in a rural health context. Extensive consultation was undertaken with stakeholders, operational data was reviewed, and research conducted on elements of the WIL program to test the efficacy of our approach.*

### Evaluation

*Our rural WIL program now has a definition and articulated approach to high-quality education. The most recent review of operational data demonstrated 94% of students (n=48) would recommend our rural WIL program to other students, and 86% of students agreed the skills and experiences gained through the rural WIL program were relevant to their future health career. 100% of host organisations (n=7) agreed they would recommend hosting a rural WIL placement, and 95% of clinical supervisors (n=19) agreed they would recommend supervision of the program.*

### Discussion

*This presentation intends to provide health educators with an example of how quality frameworks can be operationalised. The purpose of this is to demonstrate how high-level concepts can be used by those designing, delivering, and evaluating WIL programs in health.*

### References

*Mizikaci, F. (2006). A systems approach to program evaluation model for quality in higher education. Quality Assurance in Education, 14(1), 37-53.*

## Successful Integration of mental health foundational science in the post-clerkship curriculum to decrease stigma and increase knowledge

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<sup>1</sup>*Vanderbilt University Medical Center*

### **Introduction/Background**

Health care systems recognize the importance of mental health (MH) in patient outcomes; stigma regarding mental illness remains a barrier to care. Vanderbilt University School of Medicine integrated mental and behavioral health foundational science with patient care in the post-clerkship curriculum to decrease stigma of MH diagnoses, solidify clinical skills through understanding of brain function, resulting behaviors and health outcomes, and increase awareness of mental illness.

### **Methods**

We created a faculty consultation group of psychiatric basic scientists and subspecialty clinicians to identify integration opportunities within the post-clerkship integrated science courses (ISC). The team reviewed foundational science underlying MH and illness and collaborated with 8 ISC course directors to develop strategies for MH integration.

### **Results/Evaluation**

In 2023, ISC directors were surveyed about their experience with the consult model for mental and behavioral health integration. All respondents (n=6) were very or somewhat satisfied with the process of integration and the content that was integrated. Half of respondents (n=3) said the mental and behavioral health content increased their awareness of patient MH issues in their specialty. Immediately after completing each course in AY22-23 ISC enrollees (n=335) completed a course evaluation. For courses using the consult model, a significantly higher number of students agreed or strongly agreed that the course demonstrated importance of the intersection between medical and psychiatric diseases related to the topic, increased their confidence in describing patient MH concerns related to the specialties covered in the course, increased their confidence in discussing MH concerns with patients, related to the specialties covered in the course, when compared to courses that did not leverage the consult process.

### **Discussion**

Health care systems recognize the importance of MH in patient outcomes, yet stigma is a barrier. Integration of foundational science of MH into an ISC is an effective way to educate all physicians.

### **References**

- Dahlman et al (2018). *Medical Science Educator*. 28(1):145-154  
Van Liew et al (2022). *Medical Education Online*. 28:1-9

### Characterising genomics learner archetypes from lived experiences in the workplace

**Kim A**<sup>1,2</sup>, Weller-Newton J<sup>1,3</sup>, Nisselle A<sup>1,2,4</sup>, Keogh L<sup>1</sup>

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Large-scale efforts to implement genomics into routine healthcare are creating more opportunities to learn genomics in the workplace. Despite workplace learning being essential in developing health workforce preparedness, it is not explicitly promoted in strategies that cultivate genomic medicine implementation. This doctoral study proposes workplace learning may be key to creating a genomic-competent health workforce. In the final phase of this study, we characterised doctors' approaches and attitudes to learning genomics in the workplace.

Guided by phenomenology and prior research<sup>1</sup>, a longitudinal qualitative approach was used to capture experiences and perspectives of learning genomics in the workplace. Doctors working in hospitals in Victoria, Australia with access to clinical genetics services were invited to participate. After completing a screening form, eligible participants completed semi-structured interviews before and after submitting monthly reflective narratives on genomics workplace learning experiences over a minimum of three months. We used narrative analysis to generate a learner 'archetype' for each participant.

Ten doctors were recruited, representing a range of specialties, career stages, workplaces, and genomics experience. Each reported unique genomics workplace learning experiences, primarily shaped by their work contexts. Some participants' perspectives and attitudes towards learning genomics changed over time. From participants' longitudinal data, we created a novel 'genomics learner archetype' typology, characterising each doctor's approach and attitude towards learning genomics in the workplace. We then reviewed the archetypes to synthesise a 'genomics learner behaviour matrix'. Archetypes were sorted by interest in learning genomics and perceived relevance of genomics to their practice.

Work contexts shape genomics workplace learning experiences and attitudes. The genomics learner archetypes and behaviour matrix offer novel contributions not only to genomics education, but also to health professional education more broadly, and workplace learning models regarding innovative technologies. As these concepts are generalizable, they can be applied to many emerging areas of clinical practice.

#### References

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## Using simulation for an organisational wide approach for teamwork, and quality improvement.

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<sup>1</sup>Gandel Simulation Service in partnership with The University of Melbourne, <sup>2</sup>The Royal Women's Hospital, <sup>3</sup>The University of Melbourne

### **Introduction/Background:**

Gandel Simulation Service (GSS) uses simulation-based education (SBE) and translation simulation to focus on high performance team training and systems integration, quality improvement and patient safety. Most of the simulation work done by GSS is in situ. Simulation Festival or SimFest is one activity GSS provides to engage a range of clinical and nonclinical staff in SBE focused on teamwork and organisational wide engagement. A simulated birth suite is created in the hospital conference room with 2 simulated birth suite rooms and one simulated central staff desk. This allows for simultaneous multi-professional team-based emergency maternity and neonatal scenarios to be run. Simulated participant actors are part of SimFest as simulated patients and support people.

### **Results:**

SimFest was first conducted over 11 working days during a 2-week period in 2023 (19 May – 2 June). This included a large multiprofessional scenario where an operating theatre was recreated to simulation management of massive blood loss in collaboration with perioperative, maternity and blood bank staff. Daily sessions of simultaneous multiprofessional maternity and newborn emergency scenarios were run. Multi-professional staff attendance occurred for all sessions including midwives, junior and senior doctors from obstetrics, anaesthesia, and neonatology, perioperative and neonatal nurses, access managers, theatre technicians and staff from the blood bank including scientists and the senior haematologist. 94 staff participated in the birth centre SimFest sessions. Additional staff, medical and midwifery students attended other sessions. Eight morning drop-in sessions were available for hospital volunteers and all staff, clinical and nonclinical, to visit the simulated birth centre and interact with newborn manikins and equipment to learn more about what clinical teams do, and simulation. An evaluation was conducted.

### **Discussion:**

There was a commitment by hospital management and executive to support the running of SimFest. This enabled the rostering and/or support of staff attendance. SimFest was exceptionally well received by students, clinical and non-clinical staff, volunteers, hospital management and the executive team. Nonclinical staff and volunteers stated that they appreciated the opportunity to participate. They found this rewarding and several stated it enables them to support patients and their support people. Clinical staff engaged in the simultaneous scenarios reported that SimFest supported their teamwork, skills and knowledge as well as learning different perspectives of all professional groups. All groups stressed this improved contributed to improved teamwork through shared understanding, mutual respect, collaboration and communication.

**KeyWords** simulation, simulation-based education, teamwork, interprofessional, multiprofessional

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## Short-term health promotion placements – short duration, big educational impact.

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<sup>1</sup>*Three Rivers Department Of Rural Health, Charles Sturt University*

### **Intro/background**

Clinical placements are an essential requirement for the education of students entering health professions. Designing new and innovative placements is necessary to meet the high demand for clinical placements and prepare health students for the challenges of future practice. In response to this demand a University Department of Rural Health developed a short-term (one week) placement model based on health promotion activities. This placement has been conducted each year since 2019 at a large agricultural event with first year paramedicine students. The placement design challenges the notion that placement duration is a predictor of quality and educational impact. Instead, it offers an innovative, short-term placement solution that is impactful and cultivates learning and growth, allowing health students to thrive.

### **Methods**

Two separate research projects have been conducted over two consecutive offerings of this short-term health promotion placement. Students who participated in the placements were invited to participate in the focus groups for the respective projects, with data interpretations conducted via thematic analysis. Synthesis of the results investigating the educational impacts for students participating in this short-term health promotion placement will be presented.

### **Results/evaluation**

A total of 24 first year paramedicine student participated in focus groups over the two research projects. The results demonstrate the impact short-term placements can have for health profession students including the learning of interpersonal skills, mental health discourse, biometric measures, rapport building and learning with the community. The results show that short-term placements that are well designed, supported, and scaffolded can be impactful to the education of health profession students.

### **Discussion**

More opportunities for short-term placements should be supported due to the impact these placements can have as a viable and valuable placement model. Short-term placements create opportunities for innovation and enable clinical placements to develop in new and expanded settings that would not otherwise be possible with longer term placements.

## Fostering a future ready workforce: An innovative rural service-learning placement model for allied health students

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<sup>1</sup>*The University Centre For Rural Health, Lismore; The University of Sydney*

### **Introduction/Background**

With the changing landscape of how allied health supports are funded and delivered in Australia, new graduate allied health students are obtaining employment in complex primary care settings. As educators, we continue to trial ways to better prepare our students for the workforce. The University Centre for Rural Health (UCRH) provides clinical education to multidisciplinary allied health students completing their placements in rural primary care settings where limited allied health support is available in the community. To support students' learning, growth and professional development in these complex environments, the education team has designed an innovative service-learning placement model. Our aim is to discuss the core components of the model and the pedagogical approaches that have informed the development of this model.

### **Methods**

The placement model has been developed and refined over several years of delivering support to allied health students in the Northern Rivers region of NSW. Students complete work-integrated service-learning placements in residential aged care and school settings under a combination of supervision approaches, including long-armed supervision, peer-assisted learning and interprofessional supervision. The students are at the centre of the model, drawing on principles of student-centred learning. The model's key components include clinical skill development, work-ready skill development, interprofessional skill development and the rural context. The model also allows for additional learning opportunities through other teams within UCRH, and wrap-around support is provided to support a student's well-being whilst on placement.

### **Results/Evaluation**

We will present student case studies and qualitative and quantitative data collected from students to discuss the model's effectiveness in developing students' clinical and work-ready skills and their understanding and appreciation of the rural context.

### **Discussion**

This model can inform and support others in coordinating and supporting students in interprofessional allied health placements to develop similar placement models within rural settings. This model could also be applied within metropolitan and larger regional areas.

## Taking a Micro-Learning Approach to Building Dementia Capability in the Aged and Health Care Workforce

**Burton J**<sup>1</sup>

<sup>1</sup>*Dementia Training Australia*

### **Background**

Support and caring for people living with dementia continues to be a key focus for aged and health care. With Dementia prevalence continuing to grow rapidly across Australia dementia care can now be seen as mainstream care for the aged and health care workforce. How to train staff in sufficient numbers to ensure a strong person-centred focus of care practice remains a challenge, particularly in the area of understanding and positively responding to changed behaviour.

### **Methods**

A capacity building model has been developed by Dementia Training Australia to train staff to take micro-learning back into their work places and train their teams in changed behaviour in people living with dementia. The Changed Behaviour Toolkit aims to help educators and clinical leaders in time poor aged care settings educate their staff.

Micro-learning sessions were developed in response to the need to meet dementia training needs in challenging times, such as lockdowns and staff shortages, and Royal Commission findings of inadequate training in changed behaviour and dementia care. Quick reads, short videos and other engagement strategies are used to capture attention and drive retention of the information. Alongside the toolkit a train the trainer face to face workshop has been developed to support delivery.

### **Results**

222 users of the toolkit were surveyed with 64 responses received (29% response rate). 100% of respondents strongly or very much agreed that the toolkit provided appropriate topics and that the resources in the toolkit helped them facilitate learning in their teams. By March 2023 604 toolkit downloads had been achieved across Australia.

### **Discussion**

Micro-learning sessions are an acceptable method of supporting front line workers to participate in much needed training in dementia care. By training staff to take the toolkit back into their workplace a much greater workforce capability can be achieved.

### Developing a Medical Education Performance Enhancement Training (MEET) Program

**Chan B**<sup>1,2</sup>, Lee M<sup>1,2</sup>, Jo L<sup>1</sup>, Xiang J<sup>1</sup>

<sup>1</sup>University Of New South Wales, <sup>2</sup>Prince of Wales Hospital

#### **Introduction:**

In medical education, core competence is demonstrated through knowledge, skills, and attitudes. However, it's essential to recognize that each student has a unique learning style. Customising teaching methods becomes crucial, especially for students requiring additional resources to achieve standardized outcomes<sup>1</sup>. Our primary objectives include identifying students in need of assistance to enhance their learning and medical expertise and crafting an effective medical education performance enhancement program to support these students in achieving competence in clinical practice.

#### **Methods:**

We implemented an end-of-term assessment, specifically a management viva, for medical students during the Critical Care term. This aimed to identify students who either failed or were borderline in their medical knowledge or safety in clinical practice. Those identified were invited for interviews to delve into the underlying issues. Students were asked to self-assess the problems and undergo an independent assessment of management vivas, allowing us to determine if the challenges were related to (1) medical knowledge, (2) clinical reasoning, (3) organization and efficiency, (4) communication skills, (5) professionalism, (6) psychosocial factors, or (7) learning disabilities<sup>2</sup>. We analysed the results to develop a tailored learning plan for each student, followed by tracking their progress and comparing final results with those who passed the management viva assessment. We also sought student feedback to improve the program.

#### **Results/Evaluation:**

Quantitative results regarding the category of learning issues and both qualitative and quantitative feedback from students about the program will be collected. Subsequently, we will analyse and compare these results with those of students who successfully passed the management viva assessment.

#### **Discussion:**

Recognising that assessment and curriculum influence learning, and acknowledging the variability in each student's learning journey, our goal is to establish a program that aids students to succeed in their learning endeavours, enabling them to become competent in their knowledge, communication and clinical reasoning.

#### **References**

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2. Warburton KM, Goren E and Dine CJ. Comprehensive Assessment of Struggling Learners Referred to a Graduate Medical Education Remediation Program. *J Grad Med Educ*. 2017;9:763-767.

## Embedding a deliberate practice orientation within a Master of Clinical Psychology program: an aide to therapy skill acquisition prior to clinical placement

**Baranoff J<sup>1</sup>**

<sup>1</sup>*The University Of Adelaide*

### **Introduction/Background**

Provisional psychologists may benefit from orientation to intentional skill development. Deliberate practice involves focused training outside of routine work and has been used in fields such as music and sport. Nevertheless, clinical psychology programs typically emphasize knowledge development prior to clinical placements. The aim was to orient students to a deliberate practice approach and develop key cognitive-behavioural skills. Feedback on acceptability, benefits and improvements was examined.

### **Methods**

Two three-hour workshops were delivered to clinical psychology students in 2022 and 2023. Prior to the workshops, students viewed a mini lecture on applying deliberate practice to therapy skills and on delivering feedback. Each workshop began with educators roleplaying a therapy interaction to provide examples of targeted skills (e.g., explaining the cognitive model and downward arrow technique). Students worked in groups of three in the following roles: therapist, client, and observer/therapist skill builder. Skill difficulty level was tailored to the student's current level and structured feedback was given. Example responses were available to the student in the therapist role after their attempt.

### **Results/Evaluation**

Students reported the approach was acceptable, as part of an evaluation of teaching; they believed training had beneficial impacts on skill development and confidence. Students appreciated learning in a structured environment focused on skill acquisition. Suggestions for future implementations included rotation of training groups.

### **Discussion**

Embedding deliberate practice in clinical psychology programs appears to be beneficial for students preparing for clinical placement. Orientation to this approach and instruction on how to engage in skills training may bridge the gap between university-based learning and clinical placement. Time constraints within programs may limit the use of this mode of training. Consequently, the utility of deliberate practice within similar programs may be in orienting students to this approach and in establishing frameworks for practice, as well as suggesting resources for future use.

# Health science student's engagement with online content delivery and its relationship with academic performance in a hybrid teaching model

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## Introduction

A lack of research to inform how students have engaged and performed in modern hybrid learning hinders our understanding of student learning. The learning analytics capabilities of many learning management systems (LMS) can be harnessed to examine these learning processes, informing better hybrid teaching practice. This study aims to quantify the relationship between student engagement with scaffolded online content and in-person tutorial attendance components of hybrid studies and performance in summative assessment tasks.

## Methods

We examined 460 first-year students of two core Bachelor of Health Sciences units at Monash University. Via the LMS, summative tasks were scaffolded to the preceding fortnight's online materials to assess student uptake and retention. Engagement metrics, including access, view time, and percentage engagement time, were retrieved from the LMS. Correlation was sought between the individual summative task's grade and engagement with fortnight's resources. Linear regression models were fitted to assess the relationship between the summative task's grade and engagement with fortnight's resources. Multivariable linear regression models were fitted to assess the association between students' academic performance in the unit with overall engagement adjusting for in-person attendance component.

## Results

Students' grades in the fortnightly summative task are highly correlated with the preceding fortnight's online content engagement and the in-person attendance ( $r=0.26$ ;  $p<0.01$ ). Both increasing engagement ( $\beta=0.18\pm0.04$ ;  $p<0.001$ ), and in-person attendance ( $\beta=0.17\pm0.014$ ;  $p<0.001$ ) in the respective fortnight are linked to the achievement of higher grades in the fortnight's assessments. Overall performance in the unit shows significant association with the engagement to the online content ( $\beta=0.132\pm0.03$ ;  $p<0.001$ ); the association persists even after adjustment of the overall attendance to the unit ( $\beta=0.08\pm0.03$ ;  $p=0.002$ ).

## Discussion

Student performance in a hybrid teaching unit can be predicted by level of engagement with scaffolded online content, independent of the in-person attendance.

## Choosing reference sources: An interactive tutorial for medical students

**Miles D**<sup>1</sup>

<sup>1</sup>*University Of Hawai'i John A. Burns School Of Medicine*

### **Introduction/Background**

Medical students are often expected to learn by reading on their own, and by the end of medical school are expected to have the skills to be lifelong learners. This independent study may be encouraged early in institutions that rely heavily on problem-based learning. Early in medical school, students may not have a firm understanding of evidence-based medicine, or the reliability of different sources of information. A module was developed to illustrate differences between sources available for self-directed learning.

### **Methods**

An interactive lecture was created to highlight the amount of academic rigor required for various sources of information. First, students are asked true/false questions about common misperceptions, to illustrate that they are susceptible to misinformation. Later, students are shown a Wikipedia entry with incorrect information, and asked to edit this and other Wikipedia entries. Students review the publication process for the New England Journal of Medicine, and for contrast are offered the opportunity to fill out a 1-page online form to publish an article in a less renowned journal. The process of publishing textbooks with reputable publishing houses is discussed. For contrast, students are shown how the text for this module was self-published on Amazon<sup>1</sup>.

### **Results/Evaluation**

Eighteen students attended the module and provided feedback, answering 3 questions on a 4-point Likert scale. Most strongly (78%) or somewhat (17%) agreed that the module helped advance or reinforce their knowledge of the topic. All students agreed that the presentation was clinically relevant and the presenter was effective.

### **Discussion**

It remains to be demonstrated whether this module will impact students' choices of sources for self-study. Most students felt the module helped their knowledge of the topic. Students were engaged, and feedback was positive. In future iterations of this module, attempts will be made to add additional interactive demonstrations.

### **References**

<sup>1</sup>Miles, JD (2023). *Choosing Your Choosing Your Sources: A Guide for Medical Students*. Parietal Cortex, Mililani, Hawaii.

# Gamified innovations to teach social determinants of health in medical school

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## Introduction

Teaching social determinants of health (SDH) is critical for medical students to integrate patient contexts in delivering patient-centred care. Students' propensity to focus on clinical sciences pose challenges to teach SDH in a relevant and engaging manner. To address these, the Medicine in Context program of Western Sydney University School of Medicine utilises innovative gamification techniques to teach SDH.

## Methods

Using experiential learning<sup>a</sup> and gamification<sup>b</sup> principles, workshops were created to teach patient disadvantages and social capital respectively. Disadvantages are taught using a Treasure Hunt. Student groups compete for the most 'hidden treasure' while enduring allocated disadvantages which reflect lived experiences of local communities. Debriefs introduce concepts of intersectionality, intergenerational disadvantages, and strengths-based approach, and encourage reflection of students' emotions during the game.

Social capital is taught using Choose Your Own Adventure game where students assist in making health-seeking decisions for two fictional patients to ensure the best health outcomes. Intermittently, students are given a set of Escape Room hurdle tasks requiring the use of social capital in their group. Students debrief about links between social capital, inequities and healthcare access. Both workshops are evaluated with mixed methods for effectiveness and acceptability.

## Results/Evaluation

Evaluation for both workshops consistently indicate that gamification and experiential learning improved student experience, learning and retention. Students provided positive feedback and attributed the games to increasing their SDH understanding. Students also suggested the use of gamification in other parts of the medical curriculum.

## Discussion

Gamification increased engagement and enhanced cognitive and affective learning domains. The innovations engaged students and promoted the effective integration of complex SDH topics with clinical practice in ways that lectures could not achieve. The workshops utilised minimal technology and were low-cost, therefore adaptable to health professional educators with limited resources, and were successfully adapted for online delivery during COVID restrictions.

## References

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- b. Seaborn K, Fels DI. Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*. 2015 Feb 1; 74:14-31.

# Knowledge Representation to Articulate Real Worlds in Schematic-based Neuroanatomy Practicum: Bridging Science and Practice to Transfer of Learning

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## **Introduction:**

Neuroanatomy is overwhelming complex structures. Only showing them in cadaver lead to rote learning whereas some availabilities such as nerve tracts difficult to isolated. Our study aims to explore students' learning using nerve tract schemes. Directed from their own stories, various original contexts lead to construct knowledge with the feasibility to transfer of learning.

## **Materials & Method:**

Mix studies using purposive sample performed under neuroanatomy practicum with 25 groups of 4-5 students assigned to construct neuroanatomy schemes. Basic motoric and sensoric pathways and prosected cadaver provided. With creativity and critical thinking, revisions and discussions with supervisor allocated for scheme and story matches. The data collected from self-constructed questionnaire and group peer assessment.

## **Results:**

Students' perceptions unveils positive outlook using nerve scheme in daily activities, and enriched with counterpart group schemes. On 1-10 Likert scale, students' responses on 6.81 signify key findings: awareness to distinct nerve tracts in life moments (1), combined-neural pathways visualization (2), and value of supervisor discussion (3). However, standard deviation of 2.04 suggested task demanding (1) and time space (2). For transfer of learning, various contexts lead to students' confidence to employ with 6,13 students' voice.

## **Discussions:**

Neural knowledge representation of story may bridge conceptual knowledge and its implementation with potency to transfer of learning. Original contexts suggest authenticity and various modification of the basic motoric and sensoric nerve pathways stimulate students to adopt transfer of learning. Scheme refer to mental structure subjectively which is then constructed together objectively as conceptual structure with scientific approach. Despite the challenges to knowledge construction with high-order thinking in a space time, scheme model could compensate unshown anatomy structures.

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### Autism stigma is a barrier to inclusion in health professions

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#### Introduction/Background

Autism stigma is pervasive in society and contributes to the poor education and employment outcomes of autistic Australians (see Select committee on autism, 2022). The aim of this study was to explore community perceptions of autistic job suitability and compare this to the fields of study that autistic students pursue at university.

#### Methods

Data were collected using two online questionnaires. Questionnaire 1: Community perceptions regarding autistic job suitability were obtained from the general population 18+ years old, currently residing in Australia. Questionnaire 2: Students were eligible to participate if they had attended an Australian university within the last 5 years and formally or informally identified as autistic. A mixed method approach was used to analyse the data.

#### Results/Evaluation

Questionnaire 1 (n=756; general population): It was a common misconception that autism is an inherent barrier to performing health professions including doctor, nurse and psychologist. A requirement to provide human care, was more closely associated with negative attitudes towards job suitability compared to a requirement for specialised knowledge and/or technical skills. Compared to all other demographic characteristics analysed, gender had the strongest effect on perceptions of autistic job suitability.

Questionnaire 2 (n=185; autistic students): Almost half of the students (49.7%) that completed this questionnaire reported studying courses relevant to health professions, including medicine, nursing, occupational therapy, psychology, midwifery and social work. Fear of discrimination and difficulty communicating with staff emerged as common factors contributing to negative student experiences.

#### Discussion

There is a tremendous mismatch between community perceptions of autistic job suitability and the fields that autistic students study. This highlights an urgent need to increase community knowledge of autism, including that autistic traits can be beneficial to many occupations including health professions (Shaw et al., 2022). Increased visibility of autistic health professionals could help to address misconceptions and promote inclusion.

#### References

Select senate committee on autism, (2020) Services, support and life outcomes for autistic Australians, Commonwealth of Australia

Shaw et al., (2022) Challenging the exclusion of autistic medical students. *Lancet Psychiatry*. 2022 Apr;9(4):e18. doi: 10.1016/S2215-0366(22)00061-X

**Keywords:** inclusive education, disability, autism, discrimination, equity

# The need for active allies: A Narrative Analysis of Disabled Medical Students' Perspectives of their Medical School in Aotearoa New Zealand

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## Introduction/Background

Providers of medical degree programmes need to ensure that graduates represent the varied communities they serve - including disabled people. However, disabled students consistently face barriers to accessing and completing medical programmes. There are increased calls to create a more inclusive medical education culture internationally, including in Australasia. To help create more inclusive medical education institutions, it is critical we understand first-hand the perspectives of disabled medical students. This study aimed to describe disabled medical students' experiences regarding the nature of the inclusive culture of a medical degree programme at a University in Aotearoa, New Zealand.

## Methods

Semi-structured interviews were conducted with five medical students with disabilities enrolled in the MB ChB degree at the University of Otago. Interviews were between 1-1.5 hours, transcribed verbatim, and subject to narrative analysis.

## Results/Evaluation

Overall, participants reported a large degree of passive allyship concerning disability and received support from various sources including staff, students, and disability support services. However, students also recalled instances where their disability experience was framed negatively and stigmatised as a hindrance and deficit. Such instances led to participants not further disclosing any needs, and feeling that responsibility to accommodate any disability needs was exclusively theirs. Participants felt that the medical school could create more opportunities and spaces to normalise the disability needs of students, in turn validating and valuing disability.

## Discussion

Findings suggest the medical school has room to become a more proactive ally in creating more opportunities and spaces for disabled students, thereby, in turn, better reflecting society's diversity. These findings can inform practical steps at this medical school and may be useful for other medical programmes to consider.

## Opportunities For Innovations In The Lifecycle Of International Health Students: A Qualitative Exploration.

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### Introduction/Background

Australia's health sector relies heavily on a skilled migrant workforce. This attracts students seeking university-level qualifications in several health disciplines. Hence, supporting these students during their time at the university is crucial (Davey, 2023). However, alongside opportunities, the presence of international students introduces unique challenges. Therefore, the current research aims to explore the complexities of the international student lifecycle, focusing on retention, well-being, cultural diversity, and employability. By highlighting these challenges, the study hopes to inform future innovations and strategies to support international students more effectively in their academic and professional journeys ultimately leading to improved employability outcomes.

### Methods

The study employed a qualitative methodology. Data was collected using a novel approach of two focus group sessions guided by frameworks such as STAR (Situation, Task, Action, Result) and SOAR (Strengths, Opportunities, Aspirations, Results). This methodology facilitated an in-depth exploration of participants' experiences and perceptions. Participants were recruited from an Australian university and included the university's international representatives, academic staff, and international students. Data was analysed using protocols of thematic analysis, ensuring the objectivity and unbiased interpretation of the data was maintained. (Clarke & Braun, 2016).

### Results/Evaluation

Rich data has been collected, and the themes are currently being analysed. The initial analysis indicates themes around employability, student support services, and overall learning experiences. These results will be collated and extensively discussed in the oral presentation.

### Discussion

This research underscores the intricate nature of the international student lifecycle, emphasising the need for innovative strategies to enhance their educational journey and personal growth. The findings will be crucial for guiding the development and implementation of future effective policies and practices in higher health education. Ultimately, they would support building a sustainable international health workforce and foster a more inclusive and supportive academic environment.

### References

Clarke, V., & Braun, V. (2016). Thematic analysis. *The Journal of Positive Psychology*, 12, 1-2. <https://doi.org/10.1080/17439760.2016.1262613> Davey, A. K. (2023). Internationalisation of the curriculum in health programs. *BMC Med Educ*, 23(1), 285. <https://doi.org/10.1186/s12909-023-04271-8>

## Complimentary not contradictory – Exploring usability feedback from Learning Designers and Healthcare Professionals to improve user experiences of digital health information

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### Introduction

Given the diversity in the learning requirements, abilities, life experiences, and experiential knowledge of healthcare professionals (HCP), formatively evaluating usability remains an essential step to ensure learners from diverse socio-cultural-economic backgrounds, can understand and use digital health information. Learning Designers (LD) could support development of digital education resources by applying their usability scholarship to ensure users of health interfaces with varying digital abilities and learning needs are supported.

### Methods

The feasibility of LD as evaluators was explored using a hybrid methodology to generate usability feedback from an online palliative care toolkit. Feedback from HCP (subject-matter experts) and LD (educational interaction design experts) was compared to explore error patterns. Content errors were categorised. Usability issues were meta-aggregated, and severity calculated.

### Results

After reviewing the Toolkit, HCP were found to be skilled at detecting specific errors within written content, providing feedback based on statements of their knowledge of the subject-matter. Conversely, LD detected greater frequencies of interface content errors (64.2% total errors,  $M_{\text{perLD}}=11.0\pm 5.9$ ) compared to HCP (35.8%,  $M_{\text{perHCP}}=10.8\pm 3.1$ ). LD were forthcoming with options for alternate text through revision statements and suggesting strategic layouts of content to optimise user's learning opportunities. Additionally, LD identified usability errors specific to user experience at greater frequencies (60.66% errors,  $M_{\text{perLD}}= 28.86$ ) than HCP (23.12%,  $M_{\text{perHCP}}=19.25$ ).

### Discussion

Usability feedback provided by both expert groups was complementary rather than contradictory. HCP focused on ensuring the reliability, accuracy, and quality of information through their process knowledge contrasting to LD who applied a generalist approach when reviewing. LD insightful feedback focussed on lay understandings of content, whilst highlighting usability and accessibility interface errors through their knowledge and awareness of usability principles. Involving LD with HCP during formative evaluations can enhance user experience of digital health resources, particularly for users whose individual characteristics impact the success of their online learning interactions.

## International nursing students and their educators' strategies for effective communication at clinical placements

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<sup>1</sup>Monash University, <sup>2</sup>Alfred Health

### Introduction/Background

Healthcare workforce shortages are partially addressed by recruiting and training international students, including in nursing (Peters, 2023). Communicating with patients and staff is a key element of all nursing students' clinical placement experience. International students, however, are more likely to have negative communication experiences than domestic students (Koch et al., 2015). Educators working closely with international students are optimally positioned to provide communication strategies to assist students.

The aims of this qualitative study were to explore international nursing students' approaches to communication challenges at placement and the strategies they used to develop their communication skills. It also explored educator strategies for supporting international nursing students to develop communication skills.

### Methods

Sixteen semi-structured interviews were conducted with 8 final-year international nursing students, 4 academic staff and 4 clinical educators about communication at clinical placements. Interviews were recorded, transcribed and analysed thematically.

### Results

Several themes were identified such as students accessing university support services to enhance their communication skills. Educator strategies to assist students included having explicit conversations about communication techniques and creating an environment in which students felt empowered to speak up. Some educators reported that they felt unequipped to assist students with communication challenges and desired further training to work effectively with international students. There was some overlap in the strategies utilised by students and educators.

### Discussion

The findings suggest that by drawing on a range of strategies employed by both themselves and their educators, international nursing students can be empowered to communicate confidently during clinical placement. There is a need to support both students and educators through initiatives such as workshops with international nursing students and professional development sessions with clinical educators. As other international health professions students face similar challenges, these initiatives could be utilised interprofessionally.

### References

- Koch, J., Everett, B., Phillips, J., & Davidson, P. M. (2015). Is there a relationship between the diversity characteristics of nursing students and their clinical placement experiences? A literature review. *Collegian*, 22(3), 307-318.
- Peters, M. (2023). Time to solve persistent, pernicious and widespread nursing workforce shortages. *International Nursing Review*, 70(2), 247-253.

## Cultivating Innovation in Student Learning within Clinical Laboratory settings. How to get results comparable to the application of dynamic lifter in soils.

**Edgecombe G<sup>1</sup>**

<sup>1</sup>*Flinders University*

ANZAHPE conference Abstract FINAL 2024 Cultivating Innovation in Student learning within

### **Introduction/Background**

Fostering meaningful learning experiences which are diverse, inclusive, authentic and relevant to Student Nurses empowers their emerging professionalism and work readiness. An analogy of gardening will be used to demonstrate knowledge development within the clinical laboratory setting. We know that extensive soil preparation is key when planning to sow a crop to yield the best produce. Careful preparation of environmental conditions, which are multi-dimensional, is important to promote student learning. Even with the best planning there is no guarantee of successful student learning due to untold variables. Contingencies recognising variables assist to ameliorate learning conditions and boost a successful harvest.

### **Methods**

Differing student learning styles require a robust environment to nurture enquiry, curiosity and innovation through trial and error to assist in developing confidence and skill acquisition. Students value individual and group work, peer learning and feedback, and quality input from dedicated tutors through diverse teaching styles in multi-layered environments. Not all students progress at the same rate in which case additional fertiliser (learning strategies) may be required.

### **Results/Evaluation**

Innovative teaching to support student learning in this environment is continually reviewed and adjusted based on student and stake holder feedback. Introduction of consistent staffing supported by an experienced pool of allocated staff, and dedicated Clinical Nurse Specialist Educator, (CNSE) staff member all plays a role in shaping optimal conditions for comprehension and development.

### **Discussion**

Nurturing student learning within the clinical environment equates to student confidence, skill acquisition and preparation for placement. Students have been increasingly interactive and engaged in the learning process. Through collaboration and via peer-to-peer student learning, creation of fertile ground ensues, reflecting our Organisational Ethos of turning seeds into trees.

### Meeting Halfway: Engaging Clinician-Educators

**Lavercombe M**<sup>1,2</sup>

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#### **Introduction/Background**

Clinician-educators form a significant component of the health professional education workforce and deliver a substantial amount of teaching and supervision, especially in placement sites. There are many challenges clinician-educators face in contributing to educational activities such as programme development, evaluation and educational research and scholarship, yet experience in these areas can be critical to their professional development. Are health professional education programmes doing enough to encourage the contribution of their clinician-educator workforce?

#### **Methods**

In this PeArLS, I will briefly introduce the issue outlined in the Introduction and then engage the participants in a discussion across several questions listed below in 'Issues or questions for exploration'.

These questions will explore the experience of participants in working with clinician-educators outside of their usual teaching or supervisory activity and the ways in which those educators might best be utilised to enhance the programmes into which they teach. Strategies for engaging clinician-educators will form an important part of this discussion and will focus on ways in which participants have successfully overcome barriers to clinician-educator contribution.

#### **Results/Evaluation**

This session will be a success if both the presenters and participants identify ways to engage their clinician-educator staff in broader participation in their educational programmes. These could be in areas such as programme design, evaluation, faculty development or scholarship. Insights from participants who have successfully developed professional development programmes or scholarly collaborations with their clinician-educator workforce will be particularly valuable.

#### **Discussion**

Opportunities for shared understanding and problem-solving are critical to the ongoing development of health professional education programmes and practitioners. Greater involvement of clinician-educators in the academic programmes to which they contribute will be of benefit to all health professional education practitioners.

#### **References**

Sethi A, Ajjawi R, McAleer S, Schofield S. Exploring the tensions of being and becoming a medical educator. *BMC Med Educ.* 2017;17:62.

## The Future is Now: Are we adequately preparing our students?

**Pather N<sup>1</sup>**, Richards B<sup>1</sup>, Ledger A<sup>1</sup>

<sup>1</sup>*University Of Queensland Medical School*

### **Introduction/Background**

In recent times, the rate of technological change has rapidly accelerated (Topol, 2019) and the clinical landscape is becoming increasingly complex and sophisticated. Technology will potentially transform every aspect of patient interaction and management, and health service delivery, even amid concerns about the protection of patient information, the risks of perpetuating biases, and the potential to make clinical decisions based on incorrect data (Cooper & Rodman, 2023). For contemporary medical programs, identifying and integrating key concepts to equip students for future practice and clinical decision making is increasingly challenging. While we grapple with the uncertainty of future change, it remains critical to evolve medical curricula to be future focussed.

### **Methods**

In this session, participants will share strategies on navigating change in their programs, and collectively identify how to address curriculum reform with respect to what students need to know (conceptual knowledge), do (skills) and be (attributes).

### **Results/Evaluation**

This problem is common to all programs, and this session provides a forum to share practice and knowledge.

### **Discussion**

We will collectively identify the competencies necessary for future doctors in the face of rapid changes to clinical practice due to technological innovations.

### **References**

1. Cooper, A. and Rodman, A. 2023. AI and medical education – a 21<sup>st</sup> Century Pandora's Box. *New England Journal of Medicine*, **389**. pp. 385-387.
2. Topol, 'Preparing the healthcare workforce to deliver the digital future', Feb 2019, <https://topol.hee.nhs.uk/>

### **Issues or questions for exploration**

1. How can curriculum designers balance the integration of emerging technologies into the curriculum with the need to maintain a solid foundation in the more established medical domains?
2. In what ways can medical education adapt to ensure that students are equipped to navigate the ethical challenges related to the use of technology in patient care, such as the protection of patient information and the risks of biases?
3. Considering the uncertainty of future technological developments, how can medical programs instil a mindset of adaptability and a commitment to lifelong learning in students to prepare them for dynamic practice.

## Navigating the complex landscape of professional identity formation: Barriers, enablers, and strategies for cultivating educator identities among early career health professionals

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### Introduction/Background

The transition from clinician to educator is nuanced and multifaceted, influenced by both individual and social phenomenon. The integration of a teacher identity can be particularly challenging for beginning health professional educators<sup>1</sup>. The journey can be particularly marked with tension for those who view themselves as being educators foremost. This is because an educator role can often be viewed as an accessory to the more discursively valued roles of clinician or researcher<sup>2</sup>. It is understandable then that in clinical environments, health professionals may prioritise identities that their peers recognise and support. However, we understand that the development of a strong professional identity as an educator is important. It strengthens an individual's commitment to their profession, increases enjoyment of teaching, promotes retention of staff, influences openness to faculty development and willingness to engage in new teaching practices<sup>2</sup>. Thus, the discourse surrounding the evolution of an educator identity in health professionals and how it can be best cultivated warrants closer examination.

### Purpose/Objectives

The objective of this PeArLS is to explore the barriers and enablers for professional identity formation of health professional educators within the workplace context. There will be a particular emphasis on how clinical workplace culture can enable or impede the growth of strong identities amongst early career educators. Guided by individualist and relativist epistemological notions of professional identity formation and facilitated by an international collaboration of early career educators, we shall draw upon the groups own transformative experiences that shaped their professional identity as educators. The insights gleaned from lived experience as well as the exploration of innovative national and international examples of educator communities of practice will be invaluable. We will use collaborative discussion in small groups to propose pragmatic strategies that cultivate the professional identity formation in health professional educators, particularly those in the early stages of their career.

### References

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## Cultivating innovation: Revisiting the way empathy is embedded into communication skills training

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### **Background**

In 2023, we ran an ANZAHPE 'Masterclass' on 'Embedding care into the curriculum of the caring professions'. A principle guiding our planning and session delivery was that attendees would already understand and appreciate the value and importance of this endeavour. We minimised our focus on communication skills as we felt that this represented the 'low hanging fruit' and took for granted that most programs already embed empathy into their communication skills training and assessment. While among the small audience of the masterclass, this was largely true, we have had many subsequent reasons to question the 'taken for grantedness' of empathy, compassion and kindness in communication skills training.

A recent student symposium at the Ottawa 2024 conference involved a panel of students and recent graduates sharing their experience and perceptions of the assessment of communication skills in health professions curricula. It became apparent to the facilitators that there is a risk that educators have taken for granted students' understanding of empathy in terms of the expectation for it to be demonstrated in every patient encounter rather than being in tension with the expectations of assessment.

Our ultimate goal is for empathy to be part of the culture of health professional education institutions, curricula, and healthcare practice itself. By challenging the status quo, this PeArL will cultivate innovation in health professions education and assessment to work toward this goal.

### **Purpose/ Objectives**

We will explore a series of challenges for clinicians, educators and curriculum developers faced with effectively embedding empathy and care into health professions education.

### **Issues/ Questions for exploration:**

As a group we will discuss and work towards establishing tangible actions to:

- Embed empathy into both pre-clinical and clinical communication skills curricula;
- Translate empathy-related learning outcomes into fit-for-purpose learning activities;
- Assess empathy across a range of assessment formats.

## PLENARY SESSION 4

### AI is here to stay; how will education and assessment adapt?

*Prof Carolyn Semmler, Adelaide University, Adelaide, South Australia*

*Prof Lambert Schuwirth, Flinders University, Adelaide, South Australia*

Universities and educators have a responsibility to the public - ensuring that the practitioners they train can demonstrate expected competencies and knowledge of their profession – and this responsibility is not diminished by the advent of new technologies such as Machine Learning and AI. In fact, under the Australian government's new direction regarding responsible and safe AI ([Consultation hub | Supporting responsible AI: discussion paper - Consult hub \(industry.gov.au\)](#)) there will be a requirement to demonstrate how practitioners are being trained in the processes and governance principles necessary for safe deployment of AI in health care settings.

A key challenge then is for educators to understand what ML/AI models can and cannot do, where human capacities will remain and where they can be augmented by technology. This plenary session will ask the audience to reflect upon the main concerns that they hold about the use of AI in health education.

Although learning about technology and its uses will have to be part of the curriculum content, it will also have to be an integral part of how students learn, how teachers teach and how assessors assess. If most of our traditional teaching practices and assessment requirements are becoming replaceable by AI, it begs the fundamental question of what fundamental changes are needed for higher education's health professions education to stay relevant.

Early research suggests that competencies such as communication, critical thinking, collaboration, advocacy – the traditional 'soft skills' – will need to take a more prominent position. But these also require graduates who are better prepared to be lifelong learners. Both education and assessment will, therefore, have to move away from modularised curricula and single-event, high-stakes assessments, and develop long learning tracks with longitudinal assessment programs.

Examples for use in teaching key skills and aiding in quality assurance processes for assessment and competency benchmarking will be given, with key take away messages on what is known about how the development of professional expertise may be impacted by the implementation of AI in clinical contexts.



CULTIVATING INNOVATION

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**ABSTRACTS**

**POSTER  
PRESENTATIONS**



**ANZAHPE**

Australian & New Zealand  
Association for Health  
Professional Educators

## Does simulation-based education improve student confidence and experience in learning musculoskeletal physiotherapy skills?

Leung F<sup>1</sup>, Mendis M<sup>1</sup>, **Weeks B**

<sup>1</sup>*Griffith University*

### **Introduction**

Simulation-based education (SBE) is increasingly used in Australian undergraduate physiotherapy programs to supplement clinical placement time and improve students' clinical skills and professional behaviours. There is increasing evidence that SBE can be incorporated into entry-level curriculum to facilitate development of learners' knowledge, clinical reasoning, professionalism, and skills in communication and physical examination in different areas of physiotherapy clinical practice. The aim of this pilot study was to determine if simulated learning experiences using near-peer simulated patients increases student confidence and experience with learning musculoskeletal physiotherapy skills.

### **Methods**

Over 100 second-year physiotherapy students participated in a simulation learning experience in the final week of their musculoskeletal physiotherapy course. Simulation of a musculoskeletal physiotherapy caseload in an outpatient physiotherapy setting was conducted using fourth-year students and new graduates as simulated patients. It involved a pre-briefing, patient encounter, debriefing and feedback component for a musculoskeletal physiotherapy initial consultation including the patient interview, physical examination, and treatment sections. Students completed a pre- and post-simulation survey using a likert scale for responses.

### **Results**

A total of 67 students completed both the pre- and post-simulation survey. Student confidence levels for conducting a patient interview, physical examination and treatment (strongly agree and agree) was 54%, 45% and 36% respectively prior to the simulation. Post-simulation, student confidence increased to 91%, 81% and 64% respectively. All students reported that the "simulation consolidated theory and practical content" and was "useful for their learning" with an average satisfaction score of 8.9/10 for the overall simulation learning experience.

### **Discussion**

The use of simulated learning experiences in physiotherapy programs can increase student confidence and enhance engagement between theoretical knowledge and practical musculoskeletal physiotherapy skills. Future studies should look at whether participation in simulation learning activities leads to improved student outcomes and success on clinical placements.

## Use of 360 degree camera to promote physiotherapy skills

**Li L**<sup>1,2</sup>

<sup>1</sup>La Trobe University, <sup>2</sup>University of South Australia

### **Introduction/Background**

Student self-videoing their own skill performance has been shown to be an effective way to learn and build confidence when performing skills in medical and physiotherapy students. The ability to review their performance from different perspectives such as the view of the “educator”, “patient” and “therapist” may provide students with further insight to triangulate their knowledge and self-reflection. This study aims to evaluate physiotherapy student and educator’s views about the usefulness of 360-degree cameras to promote physiotherapy skill development.

### **Methods**

Second year undergraduate physiotherapy students had access to GoPro 360-degree cameras to record themselves practising skills during three supervised revision practical classes scheduled across the semester. Students were able to review their performance and obtain instant feedback through reviewing the video from different viewpoints to refine their skills. Data were collected from students and educators through an online survey on their views and perspective on the usefulness of using 360-degree cameras to promote student’s self-reflection and development of physiotherapy skills.

### **Results/Evaluation**

Physiotherapy students (n=12, 10% response rate) indicated lack of time to learn how to use the 360-degree camera (42%) and not seeing adding value of using a 360-degree camera (33%) as the main reasons for not using the cameras. While 86% of educators (n=7, 88% response rate) think the use of 360-degree camera can support student skill development, only half of the educators agree that students were able to critically review their performance in the video and translate their reflections into improvement in their next attempt.

### **Discussion**

While physiotherapy educators view 360-degree camera as a promising learning tool, strategies are required to implement and facilitate students usage of this learning tool. Further studies are required to explore the feasibility and usefulness of using 360-degree technology to promote development of physiotherapy skills.

## Undergraduate physiotherapy students' perceptions of assessment and clinical reasoning in neurology: A qualitative interview study

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<sup>1</sup>Flinders University, <sup>2</sup>Rehabilitation, Aged and Palliative care, SALHN

### Introduction/Background

Assessment and clinical reasoning are key skills needed to work in clinical practice. There are gaps in the literature related to what is taught at universities about the assessment of people with neurological conditions and the clinical reasoning process that accompanies this. How is the theory of clinical reasoning in neurological rehabilitation related to clinical practice? How can students be supported in using and developing their clinical reasoning skills for neurological patients/clients while on placement? This study aimed to investigate students' perceptions, beliefs, and experiences of assessment and clinical reasoning after theoretical learning and after clinical placement in neurology.

### Methods

A qualitative phenomenological-based approach informed the research design, using qualitative semi-structured interviews via zoom. Participants were recruited using convenience sampling from physiotherapy programs across Australia. Two groups were recruited. Group A, post theory of assessment of people with neurological conditions and pre-clinical placement and Group B post theory and post placement.

### Results/Evaluation

Nine participants agreed to participate, with 12 interviews overall. At the time of interview all participants were residing in Victoria and South Australia. Analysis revealed 5 themes of 1. Process and components of assessment, 2. Treatment planning, 3. Patient-centred care, 4. Learning clinical reasoning and 5. Assumptions and biases.

### Discussion

The assessment process and inclusion of assessment domains were affected by intrinsic patient factors such as patient goals, communication, fatigue, and the condition itself. There was variability in the definitions of the clinical reasoning. Barriers to learning clinical reasoning were context, patient complexity and variability, overwhelming knowledge, and anxiety. Facilitators identified to learn clinical reasoning were the observation of clinicians, practice using clinical reasoning/problem lists and with peers, watching videos during class, and working with real patients.

## The experience of rural undergraduate Bachelor of Nursing students engaging with a nurse tutor: A descriptive study.

**Ryan E**<sup>1</sup>, Broadbent R, Bernoth M

<sup>1</sup>Three Rivers Department of Rural Health, <sup>2</sup>Charles Sturt University, <sup>3</sup>Country Universities Centre

### **Aim:**

The aim of this study was to understand the experience of rural undergraduate Bachelor of Nursing students engaging with a nurse tutor, enabled through a Regional University Study Hub.

### **Design:**

A descriptive design was used.

### **Methods:**

Ten rural undergraduate Bachelor of Nursing students who engaged with a community based academic nurse tutor program completed an online questionnaire and two participated in a telephone interview using semi-structured questions.

### **Results:**

Engaging a support structure that is external to the university for rural, undergraduate Bachelor of Nursing students provided a safe environment for the student to explore technical academic concepts and gain clarity with topics and assessment tasks. They felt reticent to share their uncertainties with lecturers. This was particularly significant for mature aged, Aboriginal and Torres Strait Islanders, and first in family students who participated in this research.

### **Conclusion:**

The collaborative partnership between a university, community, Regional University Study Hub, and industry is a model for future initiatives which are aimed at ensuring the success of rural students in completing tertiary education and building the rural health workforce.

### **Public Contribution:**

- Retaining students studying nursing in rural areas is enhanced with the support of a nurse tutor external to the university.
- Rural student success is enhanced by having a trusting relationship with a practicing clinician experienced in the rural environment
- Providing community-based support for rural students may increase the likelihood of students remaining in rural communities.

## What is the impact of burnout among hospital-based doctors on medical education? – a systematic review.

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<sup>1</sup>Alfred Health, <sup>2</sup>Monash University

### Introduction/Background

Burnout is common amongst physicians, both consultant and trainee but the impact of burnout on medical education outcomes is not clear. This systematic review explores the impact burnout has on medical education outcomes, which will better inform targeted interventions to improve the learning environment for doctors within the hospital system. The objective of this review is to identify and synthesise the existing literature that examines the impact of burnout on education outcomes in hospital-based doctors.

### Methods

This review aligns with the PRISMA guidelines. Systematic searches of Medline (via Ovid), Cochrane Library, CINAHL (via Ebscohost), EMBASE (via Ovid), and PsycINFO (via Ovid) and Scopus were performed and results independently reviewed by two researchers. Additional bibliographic review of the included articles was conducted.

### Results/Evaluation

6225 studies were imported for screening. Following removal of duplicates, 3763 studies were identified, with 58 full-text studies assessed and 15 studies meeting inclusion criteria. Included studies assessed the impact of clearly defined burnout on medical education, measured by retention and participation of medical educators, as well as attendance and participation of doctors in training at education activities. Due to the heterogeneity of the study designs fitting inclusion criteria, a narrative review was conducted, identifying key findings between burnout and its association with poor medical education outcomes.

### Discussion

Although the prevalence of burnout is described, this review identifies the large gap in the literature of the impact burnout has on medical education [1]. Understanding the association between burnout and medical education is critical in creating a safe and effective learning environment for doctors within the hospital system [2]. This review highlights the importance of addressing burnout to ensure that doctors within the hospital system and medical educators remain engaged in educational opportunities.

### References

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2. Lu, D. W., Germann, C. A., Nelson, S. W., Jauregui, J., & Strout, T. D. (2021). "Necessary Compromises": A Qualitative Exploration of the Influence of Burnout on Resident Education. *AEM Education and Training*, 5(2), e10500.

## Teaching the skills in evidence-based medicine through online critical appraisal activities: an evaluation by medical students and their clinical supervisors.

**Kaur R**<sup>1</sup>, Tsang V<sup>1</sup>, Hart J<sup>1</sup>  
<sup>1</sup>*University Of Sydney*

### **Introduction/Background**

Critical appraisal of evidence is important part of Evidence Based Medicine. This study aims to evaluate students' and supervisors' views on critical appraisal learning activity.

### **Methods**

An online activity was designed to evaluate the critical appraisal skills of final year medical students within the University of Sydney Medical Program. The activity took place during their clinical attachment, wherein students chose a patient, formulated a clinical question, searched for evidence (mainly clinical practice guidelines, systematic reviews, or primary studies), and utilised validated critical appraisal tools. Subsequently, they discussed the evidence with their clinical supervisors and applied it to the patient, with the results submitted online for assessment through an online activity sheet followed by completing an online survey to evaluate it.

### **Results/Evaluation**

The survey was completed by 241 students and their clinical supervisors. Most of the students (81%) opted for treatment-related clinical questions, while 12% addressed diagnostic clinical questions. Systematic reviews with meta-analysis (56%) and clinical practice guidelines (27%) were the most frequently selected types of evidence. Despite 40% of students finding the activity stressful, 91% considered it valuable. Their comments emphasised its relevance to clinical practice, facilitation of clinical decision-making, and reassurance for patients. Similarly, 91% of supervisors found the activity beneficial for students, providing them with an opportunity to apply evidence to real-life situations. A majority (72%) of supervisors believed it was also beneficial for patients. Students expressed a need to enhance their literature search strategy skills.

### **Discussion**

These findings underscore the potential of online teaching not only in reinforcing core EBM skills but also in developing critical appraisal skills and the use of quality assessment tools. We recommend further exploration into the integration of critical appraisal within online platforms to enhance their educational experience and better prepare medical professionals for evidence based clinical practice.

## The Human Library and the development of cultural awareness and sensitivity in occupational therapy students: a mixed methods study

**Chu M**<sup>1</sup>, Pope K<sup>1</sup>, Hewlin-Vita H<sup>2</sup>

<sup>1</sup>Monash University, <sup>2</sup>Charles Darwin University

### Introduction/Background

The Human Library (HL) began as a social movement to promote inclusion, providing opportunities for people to have conversations to challenge stereotype and prejudices. Its effect on cultural competence in healthcare profession students had not been previously investigated. We adopted the HL as an experiential activity for occupational therapy (OT) students' and evaluated the impact this had on their cultural awareness and sensitivity.

### Methods

Students were invited to participate in a mixed-method study. A survey was used to collect data on participants' characteristic and the Cultural Competence Assessment (CCA, Schim et al, 2003) was used pre and post student attendance at a HL to measure changes in cultural competency. Quantitative data were analysed using independent samples and paired t-tests, analysis of variance and Pearson correlation. Qualitative data were collected through focus groups and interviews. Thematic analysis was used to analyse qualitative data.

### Results/Evaluation

There were significant increases in overall CCA scores from pre- to post-HL. Participant characteristics such as gender, work experience in aged care and the health sector had a positive effect on pre-HL CCA scores. Qualitative data demonstrated that participants perceived they had a level of cultural competence prior to attending the Human Library however, still made gains in cultural awareness and sensitivity and were motivated and inspired to provide culturally congruent healthcare. Participants reported being inspired by HL to provide culturally congruent healthcare and the self-reflection component promoted deeper learning.

### Discussion

A Human Library can be considered as an effective and flexible teaching method for the development of competencies for culturally congruent healthcare that can be delivered in person or online. Further study can investigate the effect of mode of HL delivery and self-reflection in this program.

### References

Schim, S. M., Doorenbos, A. Z., Miller, J., & Benkert, R. (2003). Development of a cultural competence assessment instrument. *Journal of Nursing Measurement*, 11(1), 29-40.

## Low-cost practical solutions for a high-tech program.

**Guerrero K<sup>1</sup>**

<sup>1</sup>*University of South Australia*

### **Introduction/Background**

Nuclear Medicine is a practically focused discipline, however previously this course was delivered with limited practical experience on campus. Students demonstrated lacking practical skills and unpreparedness for the clinical environment. We explored low-cost solutions for practical experiences on campus with the goal better prepare students for the clinical environment.

### **Methods**

As repetition is important to improve practical skills, availability of facilities on campus for students to develop these skills was paramount. Radiopharmacy is an important skill in Nuclear Medicine, however the cost of a laboratory set up is prohibitive. Using 3D printing and modification of existing equipment we created an environment to mimic a radiopharmacy for minimal cost.

We further used 3D printing to create a scale model of a key piece of equipment, the gamma camera, for use with dolls. This is a low fidelity solution that allows a tangible element to be introduced to tutorial scenarios increasing understanding of the camera and patient movement.

To allow students to experience current equipment we have partnered with a clinical site to host practical sessions out of hours for no cost. This has been possible through building strong industry relationships with our clinical sites to allow a mutually beneficial arrangement to arise.

Finally, we reached out to commercial vendors requesting decommissioned equipment donations. This equipment was modified to suit teaching needs allowing classroom tuition utilising authentic equipment.

### **Results/Evaluation**

An initial student survey found that students feel better prepared for clinical subjects after practicing their skills on campus. They also felt that it solidified their academic learning and added interest and enjoyment to the academic subjects.

### **Discussion**

We achieved positive improvement with a frugal, creative approach to allow students to practice the desired skill. This was achieved through exploring non-commercial solutions for providing a practical experience as well as building strong industry partnerships. The objective of increased understanding and improved clinical preparedness was met.

## Spot the fake news: evaluating medical students' competency in navigating misinformation

**Miles D**<sup>1</sup>, Bow-Keola J<sup>1</sup>, Putzler D<sup>1</sup>, Paulo F<sup>1</sup>

<sup>1</sup>University Of Hawai'i John A. Burns School Of Medicine

### **Introduction/Background**

Accurate appraisal of novel information is an invaluable tool to medical professionals, guiding clinical decision-making at all levels of medical education. The ability to assess misconceptions and ethical study design is vital to maintaining trust in the medical community, particularly in the wake of COVID-19 vaccination concerns. The objective of our study is to determine medical students' ability to assess misinformation in healthcare.

### **Methods**

An online, three-question survey was administered to first-year medical students at the John A Burns School of Medicine in October of 2023 using Google Forms. Students were asked to select "True" or "False" for the following items: 1) "Most vaccines in the USA contain mercury," 2) "There is credible evidence suggesting that vaccines might cause autism," and 3) "The US government deliberately let hundreds of people go untreated for a treatable infectious disease so they could study the natural course... done without the patients' knowledge or consent." Anonymous results were collected and analyzed.

### **Results/Evaluation**

Seventeen medical students responded, with a majority of students correctly answering questions regarding vaccine misinformation. 14/17 (82.4%) and 17/17 (100%) responded correctly to items one and two. However, significantly fewer students 7/17 (41.2%) responded correctly to item three.

### **Discussion**

Medical students were able to answer questions surrounding vaccine misinformation, demonstrating an understanding of contemporary hot-button issues. However, there was a poorer understanding of historical issues and their impact on the development of ethical research protocols, such as the Tuskegee Syphilis study which led to the creation of the Belmont Report. Students may be able to identify more outlandish misinformation surrounding vaccines, but they failed to identify other contributory history surrounding medical mistrust and vaccine hesitancy. We plan to collect more data in subsequent years and compare students to the general population.

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## 'It is rife within the hospital'...Medical students' experiences of Bullying, discrimination and harassment.

**McGurgan P**<sup>1</sup>, Gera S

<sup>1</sup>UWA Medical School

ANZHAPE Abstract 2024

### **Background:**

Bullying, discrimination and harassment (B,D&H) are unfortunately prevalent in healthcare settings.

A 2018 survey of UWA final year medical students found that 40% had experienced bullying on a clinical placement, 25% encountered discrimination and 12% reporting sexual harassment. Only 1/3 students knew what to do/how to report these sorts of problems. The medical school used this information to work with the medical student society (WAMSS) and produce a resource for students and clinical supervisors, with the intention that education and resources would decrease the prevalence of these behaviours and improve reporting. In 2023 the B,D&H survey was repeated.

### **Methods:**

Convenience sampling anonymous survey to all MD students attending clinical placements (Years 2-4).

### **Results:**

Overall participants who report experiencing bullying has sign. decreased from 2018 (40%) to 2023 (32%). Respondents more likely to report bullying.

Participants who report experiencing discrimination has not changed from 2018 (25%) to 2023 (24%); gender discrimination is most freq. (67%), then race/ethnicity (44%)

Overall participants who report experiencing sexual harassment has not changed from 2018 (12%); perpetrators almost always male (95%). Respondents still not likely to report sexual harassment- 37% stated they would not seek to address sexual harassment behaviour (versus 54% of respondents in 2018 cohort; p= NS).

### **Conclusions:**

Data interpretation limited by relatively small numbers in some MD cohorts. Although bullying experience has decreased and confidence in reporting/acting on it has increased, given that 1/3 students experience bullying there is no room for complacency.

Sexual harassment remains a problem; similar to discriminatory behaviours, almost ½ students who experience these behaviours do not report

Despite the introduction of the MD B,D,H resource in 2019, more than ½ student respondents stated they do not know about it/know what to do.

## Educator learning and action on anti-racism: an example in nutrition and dietetics

**McCartan J**<sup>1</sup>, Dordevic A<sup>1</sup>, Brimblecombe J<sup>1</sup>, Cubillo B<sup>1,2</sup>, Dart J<sup>1</sup>

<sup>1</sup>Monash University, <sup>2</sup>Deakin University

### Introduction/Background

Anti-racism is the active process of identifying and addressing racism by changing organisational policies, practices and attitudes and is an iterative process of ongoing learning and reflexivity (1). Health professions educators may require education to overcome their 'sense of paralysis' for creating culturally safe and anti-racist learning environments (2). Monash University's Department of Nutrition, Dietetics and Food has established an Indigenous curriculum working group that prioritises cultural safety and anti-racism education for educators and students. This presentation shares a departmental approach for anti-racism learning and action, piloted with nutrition and dietetics educators.

### Methods

The working group created and facilitated two educator workshops. The first introduced anti-racism terminology and concepts, whilst the second contextualised and broadened discussion about how educators can practically enact anti-racism by working through a series of real-life case scenarios. Educators were also invited to develop a shared department anti-racism philosophy.

### Results/Evaluation

After the first workshop (n = 26), 100% of attendees indicated interest to attend future sessions. The second workshop attracted 44 attendees. Here, educators positioned themselves across the following 'becoming anti-racist' zones: fear (1%), awareness (16%), learning (65%) and growth (18%). After the workshop, educators indicated improved recognition of their role and power addressing institutional and interpersonal racism. The following concepts were identified for the shared department philosophy: creating a safe and supportive environment for anti-racist action, agreement and support to name and call out racism, modelling of critical reflexivity, and embedding anti-racism in department procedures (staff and student recruitment and orientation, unit and performance reviews).

### Discussion

There were two levers that have broader relevance for health professions education: (1) collaboration between educators to reflect and create a shared understanding of anti-racist action and (2) leadership and support from senior management for anti-racism education and to create a department anti-racism philosophy.

### References

1. Kendi, I.X. *How to be an Antiracist*. 2019, Random House Publishing Group.
2. Fleming T, Creedy DK, West R. Impact of a continuing professional development intervention on midwifery academics' awareness of cultural safety. *Women and Birth: Journal of the Australian College of Midwives*. 2017;30(3):245-252. doi:10.1016/j.wombi.2017.02.004.

## Physiotherapy staff understandings and preparedness to teach using First Nations teaching approaches

**Weeks B**<sup>1</sup>, Horan S<sup>1</sup>, Arnold B<sup>1</sup>

<sup>1</sup>*School of Health Sciences and Social Work, Griffith University*

### Introduction/Background

The inclusion of Aboriginal and Torres Strait Islander cultural safety within curricula, is an accreditation requirement of health professions programs. This mandate has seen growing momentum for integration of First Nations Ways of Knowing, Doing and Being in health programs. However, little is known about what academic staff understand of this and what training needs they require to deliver a health curriculum that is culturally safe and reflects First Nations Ways of Knowing.

### Methods

A mixed methods approach was adopted, where participants completed a modified version of the Cultural Capability Measurement Tool (CCMT) [1] incorporating 24 items examining factors including respect, communication, safety and quality, and reflection and advocacy. Participants were also invited to participate in semi-structured interviews about their current understandings of First Nations teaching approaches and their preparedness to apply them. Inductive, reflexive thematic analysis was used to analyse interview data.

### Results/Evaluation

Fifteen physiotherapy staff completed the survey with an average total score of 90.7 (SD 7.5) out of 120, indicating staff perceive limitations in their current cultural capability. The only item to receive a median score below 'neutral' was "I am confident including First Nations teaching approaches in how I teach health professional students", with a median score of 'disagree'. Thirteen of the fifteen staff participated in semi-structured interviews. Key themes included 1. Need for support, 2. Trepidation in saying or doing something wrong, and 3. Recognition of the importance of First Nations approaches.

### Discussion

Physiotherapy staff acknowledge the importance of including First Nations Ways of Knowing in the curriculum and intend to advocate for change. However, they feel unprepared to include First Nations teaching approaches in their curricula and are concerned they may "do the wrong thing". Additionally, staff recognise that "you don't know what you don't know" and would require support to deliver a culturally inclusive and safe curriculum.

### References

1. West, R., et al., Development of a First Peoples-led cultural capability measurement tool: A pilot study with midwifery students. *Women and Birth*, 2017. **30**(3): p. 236-244.

## Using a co-produced multi-level drug-stigma reduction intervention to influence organisational culture

Morgan K<sup>1,2</sup>, Reece J<sup>1</sup>, Curry A<sup>1</sup>, **Wall S**<sup>1,2</sup>

<sup>1</sup>Peninsula Health, <sup>2</sup>Monash University

### Introduction/Background

Health professionals working in public health services have considerable contact with people who use drugs (PWUD). Early engagement, appropriate treatment and referral can assist in minimising complications arising from substance use. Research has found that stigma is common across healthcare settings for people experiencing problems with alcohol and other drugs (AOD) and that it is a significant barrier to patients' access to treatment (Van Boeke, et al., 2013).

### Methods

Education alone is often ineffective in producing sustained changes in attitudes towards PWUD and reducing stigma. Previous studies indicate that building AOD knowledge and changing the language used in relation to substance use disorders (SUD) can produce improved attitudes towards patients with SUD, and that training, combined with hospital-supported anti-stigma policies, and social marketing, may be more effective in reducing discriminatory practices, compared to education interventions alone. Alcohol and Other Drugs (AOD) educators at one Melbourne hospital applied a multi-level intervention design to reduce drug-stigma and discrimination. Education and social marketing interventions were implemented that focused on changing the language that health professionals use when talking about patients with substance use disorders.

### Results/Evaluation

Staff were supported to change their language about substance use, replacing stigmatising language with person-first language. Feedback from training and the social marketing campaign identified that interventions had improved staff awareness of destigmatising language and increased staff empathy towards patients with substance use disorders.

### Discussion

This oral presentation will discuss a multi-level drug-stigma reduction intervention that coupled online and face to face education with social marketing approaches to influence organisational culture, including a co-produced video and other digital campaign materials. We will share our experience of co-producing education and social marketing, its reach and impact on prompting change amongst our workforce in how we talk and interact with PWUD.

### References

Van Boekel, L., C., Brouwers, E., P., Van Weeghel, J., & Garretsen, H., F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. *Drug and alcohol dependence*. 131(1-2):23-35.

## Prevalence of neurology as a core clerkship in LCME-accredited US allopathic medical schools

**Miles D**<sup>1</sup>, Petersen J<sup>1</sup>

<sup>1</sup>*University Of Hawai'i John A. Burns School Of Medicine*

### **Introduction/Background**

The objective of this study is to highlight the value of neurology as a core clerkship in medical education by determining which schools require a neurology clerkship and if there were any correlation with its overall success as an educational institution

### **Methods**

Publicly available information regarding the curriculum of each US allopathic medical school was obtained from their respective website to determine if a neurology clerkship was required for graduation. These findings were cross-referenced with subjective medical school rankings to determine if there was a correlation between the subjective caliber of a medical school and its inclusion of neurology as a core clerkship.

### **Results/Evaluation**

There are currently 156 US allopathic medical schools and 126 of them require neurology as a core clerkship for graduation, leaving only 30 of them which do not. When considering the ranking of medical schools in the category of research according to US News & World Report, of the top 25 medical schools, only 1 school does not require a neurology clerkship. Meanwhile, only 5 of the 30 schools break the top 50 and only 13 break the top 100. The rest are either below the top 100 or remain unranked

### **Discussion**

For almost all US allopathic medical schools, neurology is considered integral to the curriculum with an associated NBME shelf examination which is utilized to prepare students for neurology topics that will undoubtedly arise on their USMLE Step 2 examination. Schools ranked higher by US News & World Report are more likely to have a required neurology rotation.

“How many times a week is it acceptable to cry at/after work? Asking for a friend”

**Davin L**<sup>1</sup>

<sup>1</sup>*University Of Notre Dame Australia*

### **Background**

In 2015 an image of a doctor, visibly upset after losing his patient, was shared online. In response many doctors shared their stories of vulnerability and how they cry, desperately trying to hide their tears. Similar stories continue to be shared through online threads where predominantly junior doctors question their experiences of crying.

### **Methods**

This presentation will discuss emotional vulnerability in the context of crying. Reviewing social media threads, interspersed with research, this paper analyses how junior doctors and medical students hide their tears, and the cost of crying – or, trying not to.

### **Results**

In recent years in curriculum design and content development we have made an active attempt to address the hidden curriculum - what goes unsaid, not taught - but learned. We make a greater effort to include challenging constructs, such as, resilience, burnout, compassion fatigue and emotional regulation. Yet, in hospitals across the world junior doctors hide their tears, crying in toilet cubicles, stairwells or in the privacy of their own cars or homes.

### **Discussion**

Crying is contextual. It may be in response to patient care, workload, or indeed the vagaries of personal lives. Yet, the emotional toll of caring is often curated as an individual responsibility encouraging the doctor to develop resilience and more recently emotional regulation where affordances are influenced by gender and status. Emotional vulnerability, the soft underbelly of care continues to challenge us in both curriculum development and clinical practice.

Like patient care, there is not always an easy solution, treatment or fix. We need to create safe spaces where understanding is provided without judgement. Like patients sometimes doctors too, just need to be seen and heard.

# Cultivating Equitable Learning Environments: Exploring Co-Production in Recovery Colleges

**Jones K<sup>1</sup>**

<sup>1</sup>*Curtin University*

## **Background:**

Recovery colleges (RCs) are cultivating innovation in health professionals' education by embracing the principles of co-production and inclusivity. RCs represent a transformative paradigm in mental health education, where the integration of both lived and learnt experiences into learning environments fosters a holistic approach to knowledge acquisition. This presentation explores the unique cultural dynamics of RCs, and how they facilitate equitable learning environments by prioritising co-production and recognising the value of diverse perspectives. RCs ensure that educational opportunities are accessible and relevant to individuals from all backgrounds, including those from marginalised communities.

## **Methods:**

A mixed-methods approach was employed, incorporating a scoping review on the implementation of RCs in Australia and consultations with authors of relevant articles. Additionally, semi-structured interviews were conducted with 17 stakeholders who were actively involved in RCs.

## **Results:**

The study findings suggest that although RCs embody innovative learning approaches, their awareness remains largely limited to individuals directly involved. Co-production is acknowledged as a transformative mechanism, effectively addressing power differentials in teaching, and learning practices, thereby cultivating an equitable learning environment. However, the full realisation of co-production's potential is significantly influenced by cultural contexts. The results illuminate how cultural nuances shape co-production practices and underscore the complexity associated with cultural shifts in large systems. Additionally, the dynamics within RCs can be influenced by organisational hierarchies and structures, emphasising the necessity for a nuanced understanding of the cultural dynamics at play within RCs.

## **Conclusion:**

This study enriches the scholarly comprehension of RCs as educational hub. The findings emphasise the significance of cultural dynamics in cultivating environments that are conducive to co-production. By employing a mixed-method approach, this research offers a nuanced exploration of both existing literature and lived experiences in educational settings. The overarching aim is to raise awareness and further the discussion on the transformative potential of RCs in mental health education.

Keywords: Education, Mental Health, Innovation, Culture, Recovery Colleges,

## Cultivating the future rural medical workforce – growing the general practice training opportunities in the bush

**Phegan C**<sup>1,2</sup>, Eske H<sup>1</sup>, Frahn S<sup>1,2</sup>, Overweel A<sup>1</sup>, Worley P<sup>1,2,3</sup>, Walker M<sup>1</sup>, Crockett S<sup>1,2</sup>

<sup>1</sup>Riverland Mallee Coorong Local Health Network, <sup>2</sup>Flinders University, <sup>3</sup>Stellenbosch University

### **Introduction/Background**

Riverland Mallee Coorong Local Health Network (RMCLHN) identified that cultivating their own rural medical workforce was pivotal for ensuring ongoing equitable healthcare access across the region. Taking accountability to grow their own medical workforce, the RMCLHN has established a metamorphic innovation, the Riverland Academy of Clinical Excellence (RACE).

### **Methods**

Cultivating a robust future rural workforce has been achieved by RACE by utilising the expertise of local General Practitioners with hospital-based specialists, the LHN has grown the medical workforce across the region but 25 % in 2 years, this has created new opportunities for research and clinical experience in both hospital and general practice settings. The Academy Pathway created by RACE enables medical graduates to undertake all the required postgraduate training to achieve a Rural Generalist Fellowship based in RMCLHN.

RACE participants are provided 5 year contracts, enabling participants to settle within the region with a sense of security and become embedded within the community.

### **Results/Evaluation**

This innovative approach to Rural Generalist training has tested the programmed ideals about how appointed learning opportunities and the quality of training in rural settings has been provided in the past.

To successfully cultivate a future rural medical workforce we have learnt that it must be locally driven and requires fearless leadership, high quality supervisors and learners, research-led design, and community.

Community engagement emerges as a central element in cultivating a sustainable rural medical workforce. Establishing partnerships between local healthcare practices and their communities fosters a supportive environment for training, development and ongoing success.

### **Discussion**

Does the pedagogic rationale meet the philosophical rationale of the RACE success story in a rural setting?

'You have to give it away to keep it'.

Exploring the impact of the Connecting to Country cultural immersion experience on Allied Health students - A case study.

**French L**<sup>1</sup>, Lander C<sup>1</sup>, Anderson G

<sup>1</sup>*Three Rivers DRH, Charles Sturt University*

### **Introduction:**

In the context of allied health education, cultural awareness and safety are crucial elements in providing effective and respectful care to individuals from diverse backgrounds, particularly First Nations people residing in rural areas. This abstract aims to explore the significance of engaging health students in a cultural immersion experience alongside local Wiradjuri Elders whilst on placement in the Lachlan area, Central West NSW.

### **Method:**

The Connecting to Country experience, introduced in 2023 is embedded as a practice of respectful connection and partnership with local Elders. The two- hour experiential walk on country provides a unique insight to the local Wiradjuri culture and the historical and contemporary issues faced by First Nations People. Written student reflections provide evaluation of the experience with relevance to current healthcare needs and practice.

### **Results:**

Participation to date has included 17 students from the disciplines of Speech Pathology, Occupational Therapy and Pharmacy. All students report a greater appreciation of culturally safe and responsive practice. as exemplified, "*Geoff's stories and passion for teaching Wiradjuri culture and language to students of all ages was moving and enabled us as students to be better equipped, culturally, to work with and alongside First Nations people*". (Speech pathology student).

### **Discussion:**

Cultural awareness training for therapists must move past assumptions and work towards culturally respectful practice specific to the context of the community they are working in (Ewen et al., 2014; Gerlach, 2015).

The partnership with local elders situates Indigenous peoples as knowledge holders by offering a platform for intergenerational knowledge exchange where traditional practices, storytelling and cultural teachings are shared. This sharing deepens the students understanding of cultural diversity, whilst promoting the reconceptualization of First Nations beliefs and practices, fostering a sense of innovation in the delivery of culturally safe healthcare.

In conclusion, integrating Connecting to Country within rural placements, has provided students the opportunity to enhance their cultural sensitivity and cultivate innovation through situated learning experiences, ultimately enhancing delivery of responsive and respectful healthcare.

### **References:**

- Ewen, S., Paul, D., & Wilkin, A. (2014). Health disparities, cultural awareness, and Aboriginal health: Results from a health educator survey. *Journal of Nursing Education and Practice*, 4(10), 40-50. doi:10.5430/jnep.v4n10p40
- Gerlach AJ. Sharpening our critical edge: Occupational Therapy in the context of marginalized populations: Aiguiser notre sens critique: L'ergotherapie dans le context des populations marginalisees. *Canadian Journal of Occupational Therapy*. 2015;82(4):245-253. doi:10.1177/0008417415571730

## Conflict Aids Small Group Learning? A survey and discussion

**Warwick S<sup>1</sup>**, Freeman K<sup>1</sup>

<sup>1</sup>*Rural Clinical School Of Western Australia*

### **Introduction/Background**

Small group learning is well entrenched in the medical education landscape, particularly with the rise of case based learning and rural medical education. However, can small group learning be redeemed if the group of learners experiences interpersonal conflict, interprofessional rivalry, implicit hierarchies or intractable dissent?

### **Methods**

The purpose of this session is to re-examine the small group learning environment, and to facilitate a functional learning community through a guided exploration of its barriers and enablers. While conflict may erode a positive learning culture, this session will explore whether it can be reversed or redeemed.

### **Results/Evaluation**

Examples of small group learning cultures from the presenter's own experiences will be presented and discussed during the session.

### **Discussion**

The reframing and repurposing of conflict can transform the small group learning culture. Conflict can be both the signal that change is required and the catalyst that brings that change into being.

### **References**

Burgess, A., van Diggele, C., Roberts, C. *et al.* Facilitating small group learning in the health professions. *BMC Med Educ* 20 (Suppl 2), 457 (2020). <https://doi.org/10.1186/s12909-020-02282-3>  
McClintock, A. H., Fainstad, T. L., & Jauregui, J. (2022). Clinician Teacher as Leader: Creating Psychological Safety in the Clinical Learning Environment for Medical Students. *Academic medicine*, 97(11S), S46-S53. <https://doi.org/10.1097/acm.0000000000004913>

## Artificial Intelligence (AI) use in surgical skill proficiency assessment in minimally invasive surgeries – A qualitative review.

**Kankanamge D**<sup>1</sup>, Wijeweera C<sup>1</sup>, Ong Z<sup>1</sup>, Preda T<sup>3</sup>, Carney T<sup>2</sup>, Wilson M<sup>1,2</sup>, Preda V<sup>1</sup>

<sup>1</sup>Faculty of Medicine, Health and Human Sciences, Macquarie University, <sup>2</sup>Surgical XR,

<sup>3</sup>Faculty of Surgery, University of Notre Dame, Sydney Campus

### Introduction/Background

There has been increased utility of artificial intelligence (AI) in the evaluation of surgical proficiency. This may assist standardisation of skill assessment and reduce the burden on expert human supervision.

Our objective is to systematically review all AI studies utilising objective standardised skill metrics for assessment of minimally invasive surgical skills (MISS). Our primary outcome is to provide an account of metrics used and reporting protocols in AI assessment of MISS.

### Methods

This review was conducted according to the PRISMA guidelines. PROSPERO ID: CRD42023457392. A systematic search of 5 databases including MEDLINE, Embase, Scopus, CENTRAL and Web of Science was performed from inception to 1 September 2023. All stages of screening and data extraction were conducted by two independent reviewers based on predefined eligibility criteria. Due to the heterogeneity of data, we have expanded this to a qualitative review.

### Results/Evaluation

3096 citations were retrieved of which 25 were included for analysis. Included citations assessed surgical proficiency in specialities including general surgery, urology, colorectal and otolaryngology. The most frequently used standardised objective metrics were; Objective structured assessment of technical skill (OSATS) and Global Evaluative Assessment of Robotic Skills (GEARS) metrics comprised 60% of all included studies, followed by Global Operative Assessment of Laparoscopic Skills (GOALS) and Endoscopic Surgical Skill Qualification System (ESSQS). The most reported reliability metric was accuracy. Accuracy of the GEARS metric ranged from 63%-100% and OSATS from 41%-97%. All included studies utilised machine learning to analyse and classify surgical skill of which included reinforcement learning, regression and classification models.

### Discussion

There is a role for simulation learning and assessment in surgery. AI has the potential to assess MISS proficiency assessment accurately and objectively across a multitude of surgical disciplines and procedures. However, interpretation of the results is limited as there is significant heterogeneity within the methodology and data presented within included studies, despite stratification for this. Our review highlights the need for future studies to employ greater standardisation of methodological and reporting protocols to form meaningful comparisons between studies and further translate findings into mainstream use.

### References

Sánchez R, Rodríguez O, Rosciano J, et al. Robotic surgery training: construct validity of Global Evaluative Assessment of Robotic Skills (GEARS). *Journal of Robotic Surgery*. 2016/09/01 2016;10(3):227-231. doi:10.1007/s11701-016-0572-1

Martin JA, Regehr G, Reznick R, et al. Objective structured assessment of technical skill (OSATS) for surgical residents. *BJS (British Journal of Surgery)*. 1997/02/01 1997;84(2):273-278.

## Participants experience of and evaluation of webcoaching for family donation conversation training

**Grivell R**<sup>1</sup>, Whitelaw T<sup>1</sup>, Dwyer B<sup>1</sup>, Topp B<sup>1</sup>, Hodak A<sup>1</sup>

<sup>1</sup>*Australian Organ And Tissue Authority*

### **Introduction**

The Australian Organ and Tissue Authority (OTA) leads the national program to save and improve the lives of more Australians through organ and tissue donation for transplantation. The OTA, with the DonateLife Agencies offers specialised professional training for a range of healthcare workers involved in donation and transplantation. The OTA has recently implemented a Web Coaching program for donation specialists. The program provides a unique web-based opportunity for donation specialists to receive real time feedback from an experienced coach in a safe, supportive online environment. The aim of this study was to evaluate the experience of participants to inform ongoing program improvement

### **Methods**

We surveyed participants for their feedback after the coaching sessions and evaluated 114 responses via an online anonymously submitted survey.

### **Results/Evaluation**

114 responses were received providing feedback on coaching sessions. 91% of participants strongly agreed that the content of the training was appropriate, and 78% strongly agreed the time allocated for the session was appropriate. 87% of participants strongly agreed that they were satisfied with training. Free text comments highlighted the most highly valued element of the training is the honest, constructive and timely feedback from the coach and the discussion that occurs while watching the recorded simulation in real time.

### **Discussion**

This program utilises a web-based “telehealth” type platform designed for medical and health consultations, which has been adapted for this training. As such it is a new and innovative method for training in our sector. The results of this evaluation demonstrate that Web Coaching is feasible in our setting and positively evaluated by participants. This online video mode training will be further expanded and modified based on the needs of participants and the wider donation and transplantation sector.

# Is New Always Better? The Effectiveness of a Novel Flashcard Study Tool (Anki) in Medical Education

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<sup>1</sup>University Of Western Australia

## Introduction/Background

Medical student education is demanding, with students required to learn a large volume of information in a short period of time. Increasingly, students adopt novel study methods such as Anki, an open-source flashcard program incorporating the study principles of active recall and spaced repetition. There have been limited studies investigating Anki use within the Australian medical education system. Our study aimed to identify patterns of Anki usage among first year medical students at UWA and associations with academic performance.

## Methods

Year 2 medical students were surveyed on whether, how, and why they did or did not use Anki, and their perceived impact of Anki on Year 1 performance. The responses were linked to academic grades in Year 1 and analysed to determine correlation between Anki use, academic performance, and stress.

## Results/Evaluation

109 of 200 students (54.5%) completed the survey. Demographics of Anki users and non-Anki users were not statistically different. The average Anki user used Anki for 2 hours per day, reviewed 330 cards per day, and studied for 5 days per week. The majority of Anki users used pre-made or collaboratively-made cards rather than creating their own, and used cards based on UWA teaching materials.

Anki users' academic performance was not superior to non-Anki users. Non-Anki users had a significantly greater score in first semester MCQ and SAQ assessments. Amongst Anki users, the number of study days per week using Anki was associated with a greater combined mark in Year 1 ( $p < 0.001$ ), and every extra day of study using Anki was associated with a +1.82 (1.43, 2.21) increase in Year 1 academic performance.

## Discussion

Anki may work well for some medical students when used frequently, in a collaborative way with students developing self-made cards. However, for most students, it does not produce superior academic results.

## References

*Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.*

# An evaluation of nursing students' collaborative learning experience using a web application featuring digital notice boards during their Primary Care clinical placement

**Chua W**<sup>1</sup>, Lee C<sup>2</sup>, Chen Y<sup>3</sup>, Kang Y<sup>4</sup>

<sup>1</sup>National Healthcare Group Polyclinic, <sup>2</sup>National Healthcare Group Polyclinic, <sup>3</sup>National Healthcare Group Polyclinic, <sup>4</sup>National Healthcare Group Polyclinic

## Introduction

As the COVID-19 pandemic safety measures ease, Primary Care reopened its door for nursing students' clinical placement.

To complement the student's clinical placement, the NHGP Education team curated learning activities leveraging on a Web 2.0 Learning tool 'Padlet' as notice boards for sharing of curated clinical educational content and synchronized tools to promote collaborative learning & interaction among nursing student and clinical instructor (CI).

The CI guided the students on the use of 'Padlet' for clinical learning such as case discussion, debrief and reflection.

## Objective

To evaluate how the use of 'Padlet' has optimised nursing students' collaborative learning experience during clinical placement and to use the results in enhancing strategies for clinical placement.

## Methodology

A descriptive, cross-section, questionnaire survey was used in this survey.

Participants were 158 nursing students who had their Primary Care placement at NHGP.

Students were invited to self-rate their learning experiences with the use of 'Padlet'.

The survey results highlighted students' collaborative learning experience using 'Padlet' during their clinical placement.

87% students responded positively to their learning experience using 'Padlet' during their clinical placement.

More than 90% of the students agree and strongly agree that interaction on 'Padlet' enhanced their understanding on Primary Care hence the curated learning activities in 'Padlet' complemented their clinical.

## Discussion and Conclusion

Overall, the results were positive on the students' collaborative learning experience during the clinical placement in incorporating curated learning activities in the design of Padlet collaborative learning as a Web 2.0 learning tool.

Padlet showed a promising impact on students' learning in clinical placement.

Clinical educators can explore adopting this learning tool for collaborative learning to complement clinical placement as an integrated approach to clinical supervision.

Beyond the pandemic. Artificial Intelligence (AI) use in infection control prevention for health care worker (HCW) teaching, remediation and upskilling in personal protective equipment (PPE) use.

**Kankanamge D**<sup>1</sup>, Ong Z<sup>1</sup>, Magrabi F<sup>3</sup>, Carney T<sup>2</sup>, Wilson M<sup>1,2</sup>, Preda V<sup>1</sup>

<sup>1</sup>Macquarie University, <sup>2</sup>Surgical XR, <sup>3</sup>Australian Institute of Health Innovation

### **Introduction/Background**

Infection prevention and control (IPC) is a practical, evidence-based approach that is crucial in reducing the risk of harm by infection of patients and health care workers (HCWs). Such measures include correct hand hygiene and personal protective equipment (PPE) donning/doffing procedures to curb infection spread via HCWs. This may be in the context of inpatient wards or theatres to hospital in the home, aged-care and other clinical care settings. This has been well documented by the World Health Organisation (WHO) and exemplified in the recent COVID-19 pandemic and its variants.

### **Methods**

This prospective, longitudinal cohort study serves as an extension of our previous work on which we train and investigate the accuracy of a supervised artificial intelligence (AI) PPE platform, SXR-AI-PPE®. This study recruits over 250 students and HCWs across Macquarie University Hospital and MD program who have been trained in PPE, initially with a standard double buddy system. Participants were subsequently assessed on a guided and unguided AI-PPE platform and provided feedback after use.

### **Results/Evaluation**

We describe the use of the SXR-AI-PPE® platform over longitudinal quantitative and qualitative data sets for teaching, remediation and upskilling of PPE use. The platform was sensitive and specific in detecting different participant ethnicities across a variety of clinical settings. Recorded time to don/doff highlighted that more time was required when using the guided platform. Remediation points flagged by the system showed that participants had low compliance in meeting the required hand washing duration. Participant feedback highlighted ease of use of the system, and benefit from both guided and unguided platforms.

### **Discussion**

AI innovation has a significant role in our healthcare education toolset. SXR-AI-PPE® has highlighted the potential to be scalable for the implementation of infection training protocols in a wide range of healthcare facilities to improve clinical practice and safety without diverting limited human resources. AI-PPE serves as a convenient way to monitor for compliance and trends in HCW training, with targeted and effective governance of workplace and patient safety practices.

### **References**

Preda VA, Jayapadman A, Zacharakis A, Magrabi F, Carney T, Petocz P, et al. Using artificial intelligence for personal protective equipment guidance for healthcare workers in the COVID-19 pandemic and beyond. *Commun Dis Intell* (2018) 2022;46. <https://doi.org/10.33321/cdi.2022.46.51>.

Bates DW, Levine D, Syrowatka A, Kuznetsova M, Craig KJT, Rui A, et al. The potential of artificial intelligence to improve patient safety: a scoping review. *Npj Digit Med* 2021;4:54. <https://doi.org/10.1038/s41746-021-00423-6>.

## Digital teaching tools facilitate improvements in student engagement and learning experience.

**Fehlberg R<sup>1</sup>**

<sup>1</sup>*University Of Newcastle*

### **Introduction/Background**

Physiotherapy students prefer active learning with practical examples to consolidate theoretical concepts.<sup>1</sup> This quality improvement project, we aimed to evaluate if using a digital learning platform enhanced student engagement and satisfaction with their learning experience in a two-course learning stream of core content (CPI, CPII).

### **Methods**

The digital learning platform “Canvas” was utilised to deliver revised basic and advanced core courses. We used data from previous Course Evaluation Surveys (CES) to identify the key course improvements required. These included explicit linking of the relationship between learning outcomes and assessments, improve ability to navigate course materials in a digital format, introduce formative assessments and self-check quizzes with immediate feedback, shorter podcast-style lectures, and online learning activities as additional resources. Tutorials were redesigned to complement the theoretical digital learning including adding interactive digital case studies, active learning tasks and concurrent break-out rooms.

A mixed methods approach to data analysis was implemented using the University’s CES. We used descriptive statistics to analyse quantitative scores and thematic analysis to analyse student comments.

**Results/Evaluation** Response rates for the quantitative CES were 42% (n= 102) for CPI and 61% (n= 89) for CPII (School average 27% and 33% respectively). Overall student satisfaction with teaching scores were 4.8 for CPI and 4.5 for CPII (maximum score 5, School average 4.18 and 4.13 respectively).

Ninety-seven percent of student gave ratings of “Excellent” or “Good” on a likert scale for course presentation style, structure, content, and organisation of online resources.

### **Discussion**

Using a digital learning platform enhanced student engagement and satisfaction with learning. Students reported benefits in understanding expectations and content as well as reduced exam anxiety and readiness for the workplace. Despite the overwhelmingly positive results, an analysis of the impact on workplace preparation was beyond the scope of this project. This should be further investigated.

Key words: innovation, technology, engagement, learning experience, digital platform

### **References**

1. Stander J, Grimmer K, Brink Y. Learning styles of physiotherapists: a systematic scoping review. *BMC Med Educ.* 2019 Jan 3;19(1):2. doi: 10.1186/s12909-018-1434-5.

## Assessment for learning: Perspectives from first-year physiotherapy students

**Lee M<sup>1</sup>**

<sup>1</sup>*University Of New South Wales*

### Introduction

There is increasing evidence that programmatic assessment can more accurately capture learners' performance and is progressively being adopted as a preferred method for assessing students enrolled in medical and health professions courses<sup>1</sup>. However, evidence about students' perceptions of programmatic assessment is still emerging<sup>2</sup>. We implemented a programmatic assessment design in first-year functional anatomy and biomechanics subjects in a newly established physiotherapy program. We intentionally combined different assessment methods longitudinally to develop clinical reasoning skills and competency in conducting clinical assessments. The assessment involves two components: weekly interactive, case-based online modules and clinical skills checklists. Completion of the weekly online modules and satisfactory pass of all clinical skills checklists are worth 20% of the overall mark.

### Methods

Learners' perceptions of programmatic assessment were evaluated via an anonymous end-of-semester in-class survey which consisted of Likert-type scale questions to allow students to indicate the extent to which they agree or disagree with a given statement, as well as open-ended questions.

### Results

Ninety responses (out of a cohort of 116) were collected and analysed. The average time taken to complete the survey was 4.5 minutes. Over 85% of responders either strongly agreed or agreed that the online modules were engaging, challenged them to think critically and helped to develop clinical reasoning skills. Over 78% of responders either strongly agreed or agreed that the skills taught are relevant for their future profession, encouraged them to practice continuously, and they received ongoing feedback that facilitated their learning. Seven students also voluntarily provided written testimonials which echoed the results of the survey.

### Discussion

Majority of first-year physiotherapy students had a positive experience and indicated their preference for programmatic assessment over traditional assessment methods. More research is required to provide insights into factors that influence students' perceptions of programmatic assessment.

### References

1. Iobst WF, Holmboe ES. Programmatic Assessment: The Secret Sauce of Effective CBME Implementation. *J. Grad. Med. Educ.* 2020, 12, p518–521
2. Baartman L, Baukema H and Prins F. Exploring students' feedback seeking behavior in the context of programmatic assessment. *Assessment and evaluation in higher education.* 2023, 48:5, p598-612.

## Supporting Clinical Reasoning Using Branching Scenarios (SCRUBS) for future dental practitioners

Mustchin C<sup>1</sup>, Dal Santo K<sup>1</sup>, **Copley J**<sup>1</sup>, White M<sup>1</sup>, Jones B<sup>1</sup>

<sup>1</sup>*The University Of Melbourne*

### Introduction/Background

Learning activities allowing students to explore the application of scientific theory to real-world clinical problems without clinical pressures have been identified as a need for dental students. Branching scenarios (BrSc), provide a safe, interactive, online environment where students can apply their clinical reasoning skills and experience the consequences of their decisions without the risk of harm to actual patients. They offer multiple pathways based on decisions made, mimicking the complexity and unpredictability of real-world dental cases and apply productive failure and adaptive learning pedagogy. This project aims to pilot BrSc with Melbourne Dental School (MDS) students to determine perceived usability and gain insight into student perspectives on learning these clinical skills in a digitally enhanced way.

### Methods

A validated serious gaming model was utilised as the framework for the construction of a branching scenario of an atypical dental pain case. The case was mapped to a decision tree on Miro board, and the branching scenario was built using the Qualtrics™ platform, which utilises rule-based logic to navigate through the various decision points of the case scenario. Second-year MDS students will pilot the branching scenario as a learning activity alongside clinical activity. On completion of the BrSc, students will be invited to complete a usability questionnaire and participate in a focus group to discuss their user and learning experience.

### Results/Evaluation

Data from the questionnaire, focus groups and the Qualtrics™ learning analytics will be used to understand how students engage with and use the branching scenario.

### Discussion

Findings from this study will inform how branching scenarios can be implemented to support student learning. This project will shape how we develop future branching scenarios and leverage technology and principles of co-design to provide individualised learning experiences for MDS students.

## End-of-Life Essentials- improving the quality of dying in acute hospitals

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<sup>1</sup>Flinders Research Centre for Palliative Care, Death and Dying , <sup>2</sup>College of Nursing and Health Sciences, Flinders University

### Introduction/Background

More people die in acute hospitals than anywhere else in Australia. End-of-Life Essentials (EOLE) provides free, evidence-based education, toolkits, and accreditation resources to enhance the quality of end-of-life care in hospitals.<sup>1</sup> EOLE was conceptually developed from the Australian Commission on Safety and Quality in Health Care Consensus Statement and is funded by the Commonwealth Department of Health and Aged Care's National Palliative Care program. EOLE aims to increase knowledge and skills in end-of-life care for health care professionals (HCPs) working in the acute hospital sector.

### Methods

EOLE is made up of 17 modules which include topics covering Dying, a normal part of life; Patient Centred Communication and Shared Decision Making; Recognising the End of Life; Planning End-of-Life Care: Goals of Care; Teams and Continuity for the Patient; Responding to Concerns; Emergency Department End-of-Life Care; Paediatric End-of-Life Care; Chronic Complex Illness End-of-Life Care; and Imminent Death: How to Respond. The modules were peer reviewed by over 30 Australian multidisciplinary clinicians.

### Results/Evaluation

Since 2015, 35,755 HCPs have registered to EOLE, and there have been 83,294 module completions. Ongoing evaluation shows that the education improves HCPs' self-perceived knowledge, skills, attitude, and confidence in end-of-life care, enhances their ability to initiate end-of-life conversations, and assists HCPs in identifying essential elements and tools for effective teamwork.<sup>2</sup>

### Discussion

For many HCPs, end-of-life care is not usual practice in acute hospitals, and there is often a dissonance between the ideal of providing cure and the reality of dying. Training in end-of-life care is limited in both undergraduate and post-graduate programs. EOLE provides free training modules to enhance learner capability and understanding of identifying dying, communicating with patients and other team members, and supporting quality care. End of life is also a component of accreditation, and EOLE provides resources for those undertaking the accreditation process, to streamline data collection.

### References

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## Using politeness theory to deconstruct how pre-registrant pharmacists approach disagreement in the workplace

**Liu J**<sup>1</sup>, Grieve A<sup>2</sup>, Lim A<sup>1,4</sup>, Walker S<sup>1</sup>, Singh H<sup>1</sup>, Sarkar M<sup>2</sup>, Ong E<sup>1,3</sup>

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### **Objective:**

Using politeness theory, the objective of this study was to investigate how pre-registrant pharmacists engage in and resolve workplace disputes.

### **Methods:**

This study explores two different situational judgement scenarios involving workplace disputes, presented to students during a virtual mock job interview. In scenario A, the conflict was between a pharmacist and a colleague who was lower in hierarchical status. In scenario B, the conflict was between a pharmacist and a colleague of equal hierarchical status. Interview responses were coded into three themes by two independent reviewers. The three themes identified were engagement in face threatening acts (FTAs), use of on or off record approaches, and conflict resolution strategies used. Using Ritchie and Spencer's five stage framework analysis, the approaches students used to overcome disagreement were identified. Additionally, thematic analysis explored the concept of situational urgency when pharmacists are faced with antagonistic scenarios in workplace settings.

### **Results:**

Overall, 25 students participated in scenario A and 32 students participated in scenario B. When combined, all but one participant stated they would engage in the FTAs. For Scenario A, 24 out of 25 students indicated engagement in the FTA. Of those who engaged in the FTA, 17 students responded with on record approaches. For Scenario B, all 32 participants indicated engagement in the FTA and 28 students responded with on record approaches. Due to situational urgency in scenario B, participants were more likely to say they would act by directly resolving the complaint as opposed to acting through support and enquiry.

### **Conclusion:**

This study demonstrates that pre-registrant pharmacists engage in FTAs when facing workplace disputes. When situational urgency is present, there was a higher prevalence for pre-registrant pharmacists to engage using a bald on record approach. Otherwise, the use of pre-facing disputes with an inquiry or empathetic statement is preferred.

# Evaluation of Family Violence Education: Tertiary Health Service Experiences

**Sturt R**<sup>1</sup>, Bernstein M<sup>1</sup>, Singer L<sup>1</sup>

<sup>1</sup>Alfred Health

## Introduction/Background

Alfred Health's Strengthening Hospital's response to Family Violence (FV) Project (SHRFV) commenced staff family violence education in 2018. Informal feedback during organisational accreditation in 2023 suggested this education required review. The aim of this evaluation was to identify gaps in design, measure effectiveness, and to describe recommendations for improvements to FV education.

## Methods

Face to face (F2F) sessions were observed, session materials collected, and all in-scope FV modules on Alfred Health's Learning Management System (LEX) were identified. Design indicators were used to examine online modules and F2F sessions. Available data aligned to Kirkpatrick's Model<sup>1</sup> was collected and analysed.

## Results/Evaluation

More than 8000 (F2F and online) FV education interactions were recorded. There is evidence linking these interactions to positive consumer impact (e.g. Case Studies) including compliments (e.g. Riskman data), and known benefits and positive outcomes amongst victim-survivors disclosing FV at Alfred Health (e.g. file audits where documentation clearly demonstrated that staff recognised the signs of FV and responded using Sensitive Practice). Areas for improvement were also identified including: enrolment and reporting gaps, inconsistent use of the LMS; design issues in particular the lack of constructive alignment throughout the majority of online modules. Effects of education on staff uptake of required FV electronic note-type appeared limited.

## Discussion

Findings from this review highlight examples of some positive results and impacts of FV practice on key stakeholders likely, in at least part, due to FV education completed by thousands of staff. These positive impacts could be strengthened through redesign of these important teaching and learning resources. Key recommendations include: redesign in accordance with constructive alignment<sup>2</sup> and Adult Learning principles; increased summative knowledge assessment; and, optimization of online module length.

## References

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## Feasibility and Effectiveness of Occupational Therapy Role-Emerging Placements in Aged Care Homes

**Alomari I**<sup>1</sup>, Tse T<sup>1</sup>, Lockwood K<sup>1</sup>

<sup>1</sup>*La Trobe University*

### **Introduction/Background**

This study explores the potential of role-emerging placements (REPs) in aged care homes for occupational therapy students, aiming to assess their feasibility and effectiveness against the backdrop of existing literature and practice gaps.

### **Methods**

Acceptability was measured using students', supervisors', and clients' satisfaction surveys. Three open-ended responses were also gathered from participants to identify the facilitators, challenges, and recommendations to increase acceptability. Limited efficacy was determined by the percentage of student learning objectives and client goals achieved. Practicality was measured by students' attendance to the placements.

### **Results/Evaluation**

The number of the study participants includes six students, three supervisors, and fifteen aged care clients. Six students, three supervisors, and 15 aged care clients completed the satisfaction surveys. Six students stated the number of learning objectives, and 10 clients were analysed using GAS. Six students declared their hours of attendance to the placements. Analysis is underway.

### **Discussion**

The project underscores the potential of such placements to enhance students' learning experiences, contribute to aged care residents' satisfaction and inform future educational strategies in allied health.

## Dementia care training in rural and remote Australia: Findings of roundtable focus group discussions with health and aged care workers

**Fitzgerald K**<sup>1</sup>, Fyfe K<sup>2</sup>, Woods J<sup>1</sup>, Newman E<sup>2</sup>, Thompson S<sup>1</sup>

<sup>1</sup>*The University of Western Australia*, <sup>2</sup>*Dementia Training Australia, The University of Western Australia*

### Introduction

Dementia is responsible for the most significant burden of any chronic disease in older Australians. Two in five of those with dementia live in rural and remote areas. This research describes education barriers and enablers for the health and aged care workforce who care for those living with dementia in rural and remote Australia.

### Methods

As part of a more extensive study, this research aimed to better understand barriers and enablers of dementia education with input from sixty-seven participants in roundtable focus groups across six diverse rural and remote locations across Australia.

### Results

Many commonalities emerged, confirming those identified in the literature—the most significant challenges related to staffing levels, time constraints, and competing priorities. Enablers of the uptake of training included support from employers, local collaboration, and accessibility. Participants emphasised the need for strong organisational support, content relevant to both local challenges and workers' scope of practice, the value of local training that brought providers across different organisations together, and flexible, interactive delivery methods-by experienced trainers. Participants at all sites highlighted the need for culturally safe aged care practices tailored to local cultures.

### Discussion

The results of the roundtables, as well as a national survey completed as part of the research, informed key principles of an education and training framework for designing, delivering and evaluating dementia education and training for rural and remote workforce in the critical area of caring for people living with dementia. Three overarching principles were identified: community and stakeholder engagement, culturally responsive training, and research and evaluation. Central to these overarching principles were seven underpinning values: local knowledge and expertise, training in a rural context, inclusivity, equitable access, flexible training design, knowledge translation, and multidisciplinary collaboration. These findings enhance our understanding of how to better meet the educational needs of this workforce.

# The Disconnected Simulation Program; The Impacts, Considerations and Re-integration Plans of a Disenfranchised Health Simulation Environment.

**Kindon L**

<sup>1</sup>*Tasmanian Health Service*

## **Introduction/Background**

Despite the fact that investment was made into simulation equipment and a statewide approach to simulation was taken, complications of service provision, lack of suitable environments, a level of misunderstanding of the scope of simulation from all levels and a disconnect between the hospital and location of equipment, has greatly affected the capability to provide simulation programs that enhance and innovate education to healthcare staff. It is the aim of multidisciplinary education leaders and the simulation environment at the Royal Hobart Hospital to explore the difficulties and impacts of these roadblocks on staff education, safety and quality information gathering used to inform best practice and the broader capabilities of healthcare staff to improve their skill and capability in key healthcare deliverables(1,2).

## **Methods**

The key concepts behind the need for simulation within successful hospital education programs will be measured through the changes noted under four key performance indicators that align with simulation capabilities; Accreditation, quality and safety to inform best practice (2), multidisciplinary healthcare staff development capacity(1) and integrated simulation provision. There will also be aim to measure and evaluate, through this process, the success of reintegrating a simulation environment into the footprint of the hospital, mitigating the underlying impediments to successfully meeting the needs of education programs.

## **Results/Evaluation**

Measurable outcomes will include the reintegration of simulation into the hospital footprint and it's demonstrable capability of providing access to simulation equipment. Further to this, each key performance indicator highlighted will provide data that correlates to improved patient safety, and higher levels of staff capabilities, measured through staff review, enhanced skill demonstrated by healthcare workers, simulation proficient educators across the disciplines and higher levels of simulation incorporation into organisation wide education profiles.

## **Discussion**

The importance of simulation to enhance healthcare education is highlighted by its current absence in the hospital. Effort to reinstate simulation into hospital education programs can only be of benefit to the establishment and provide greater educational capacity.

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## Ultrasound confirmation of gastric tube placement by non-specialist intensive care clinicians – a prospective pilot study

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### Introduction/Background

Gastric tubes are commonly used in intensive care; complications may arise from misplacement, especially if unrecognised. The usefulness of point-of-care gastric ultrasound in confirmation of placement is unclear, especially among clinicians not formally trained in ultrasonography.

Objectives:

1. Assess the feasibility of training non-specialist intensive care clinicians in focused gastric ultrasound.
2. Assess the safety of ultrasound for the confirmation of gastric tube placement.

### Methods

A prospective cross-sectional study design was employed. Non-specialist intensive care clinicians working in a busy 36-bed quaternary intensive care unit underwent basic gastric ultrasound training, with a 30-minute lecture and hands-on demonstration. Clinicians then attempted to use ultrasound to confirm placement of any gastric tubes inserted, recording their findings, which were then compared to subsequent chest radiography by the investigators.

### Results/Evaluation

108 incidents of gastric tube insertion were captured over 14 months with 4 misplaced (3.7%). 69.2% (72/104) of correctly positioned tubes and 100% of misplaced tubes were correctly identified, with a sensitivity of 100% and specificity of 69% for the detection of incorrect placement.

21 clinicians attempted ultrasonography (estimated 20% of the total that attended the training). 3 clinicians completed 8 or more scans, with an accuracy of 76%, compared to clinicians who had completed between less than 8 scans (accuracy 46%).

### Discussion

Point of care ultrasound may be a useful adjunct to chest radiography in the confirmation of gastric tube placement in intensive care, though larger studies are needed to confirm safety given the low incidence of misplaced tubes.

Training non-specialist clinicians to perform basic gastric ultrasonography is feasible, though uptake of the technique needs to be encouraged. Ongoing practice is important after training to improve accuracy.

Further research should focus on the specific barriers to uptake among clinicians, with future education designed to address these barriers.

## Navigating pedagogical content knowledge in health professions education: Implications for practice

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<sup>1</sup>Monash University, <sup>2</sup>RMIT University

**Keywords:** Pedagogical content knowledge (PCK), health professions education, professional learning, teaching practice, qualitative

### **Introduction/background:**

There is a paucity of research investigating the use of pedagogical content knowledge (PCK) as a framework for capturing and developing the professional knowledge required for high-quality teaching in the context of health professions education. Given its proven benefits in teacher education and other STEM-related disciplines, exploring the impact of PCK in health professions education holds significant promise for educators and students. This study aims to understand the affordances and challenges faced by health educators in articulating and enacting their PCK.

### **Methods:**

This qualitative study, grounded in social constructionism, engaged eight educators from diverse health disciplines at an Australian university. Participants collaborated in developing and refining PCK-infused lesson plans using the Content Representation (CoRe) tool. Several writing sessions and an online community of practice facilitated PCK-related discussion, resource sharing, and networking. Data collection comprised two rounds of individual interviews, written reflections, and artefacts in the form of CoRe tool. Data were analysed using team-based thematic framework analysis.

### **Results:**

Our analysis identified three themes highlighting the affordances of the CoRe tool: (1) clarity of teaching goals and purposes, (2) understanding students' learning needs, and (3) promoting reflection on teaching practice. Additionally, two themes identified challenges: (1) confusion regarding CoRe tool usage and (2) gap between CoRe planning and actual teaching implementation.

### **Discussion:**

Despite the challenges encountered by the participants, the study findings underscore the significance of making explicit the planning for, reasoning behind, and enactment of educators' pedagogical decision-making in teaching specific health-related content. Building upon these findings, we discuss strategies for developing educator-facing resources, such as annotated CoRes and teaching clips with commentary, to support professional development and enhance teaching practices within the broader health professions education community.

## Improving student clinical learning by developing the teaching skills of junior doctors.

**Anderson K**<sup>1</sup>

<sup>1</sup>*School Of Medicine And Psychology, Australian National University*

### **Introduction/Background**

The reality of busy hospital environments is that a significant proportion of clinical teaching is undertaken by near peers and therefore developing education skills in these junior doctors is important for students to get the best out of their placements. Medical Schools often run teach the teacher training for senior doctors but often forget the near peers. For most, acquisition of medical knowledge is prioritized above other professional development and so engagement can be problematic.

The Australian National University (ANU) Medical School and the ANU Educational Fellowship Scheme introduced a new “Teaching in Medicine” pathway leading to Associate Fellowship of the Higher Education Academy (AFHEA). This was designed for doctors without formal university roles who train students in the clinical environment. The pathway involves face to face workshops, reflective peer to peer activities and oral assessments that lead to AFHEA with Advanced HE – an international recognition of professional development as a teacher.

### **Methods**

This innovation now in its 7th year of implementation has been assessed through post workshop evaluations, group feedback sessions and individual interviews. Six years of mixed methods evaluation data will be presented.

### **Results/Evaluation**

Across two teaching hospitals 40% of the junior doctor cohort have signed up to the pathway. Prior to this very few undertook any formal professional development around teaching. Oral reflective activities and assessments were attractive to busy residents who are not keen on doing more paperwork in a system already overburdened. Through this pathway to AFHEA they developed their education skills, felt supported for their teaching contributions and were able to plan future professional development.

### **Discussion**

Creating educational professional development opportunities for junior doctors is crucial to support student clinical learning in the hospital environment.

## Education coffee club: brewing educator knowledge and dialogue

**North J**<sup>1</sup>, Hughes J<sup>1</sup>, Maloney C<sup>1</sup>, Clifford B<sup>1</sup>, Radojkovic B<sup>1</sup>, Castro de Jong D<sup>1,2</sup>

<sup>1</sup>University of New South Wales, <sup>2</sup>University of Canberra

### Introduction

Informal discussions about teaching allow academics to manage educational practices collaboratively to generate prompt and practical solutions<sup>1</sup> and to challenge their views to improve their teaching practice<sup>2</sup>. The education coffee club was established to foster an interdisciplinary teaching community to share practice and support teaching efforts within a recently created health professional school at a large metropolitan university. Four programs are part of the school: exercise physiology & exercise science, physiotherapy, pharmacy, and nutrition & dietetics. The development, implementation, and evaluation of the effectiveness of the multidisciplinary education coffee club in sharing teaching practices and building community will be explored.

### Methods

An anonymous survey, developed by the co-leads of the education coffee club, has been designed to capture the utility and benefits of the education coffee club and areas for future improvement. The analysis will capture the common themes of experiences of the interdisciplinary members and determine which format and content are best to enhance engagement. The results from this survey will be analysed and presented.

### Results

The coffee club meets monthly and all members of staff who engage in teaching are invited to share, formally or informally, their effective teaching practice or discuss difficulties they have encountered in teaching. An ethics application has been approved and data collection will commence in February-March 2024. A qualitative and quantitative research design will be used with the survey consisting of 6 multiple-choice questions and 9 open-ended questions.

### Discussion

The findings from his study will help to optimise the format and delivery of this teaching club to meet the needs of the multidisciplinary academic staff within the school whilst also providing a supportive culture for meaningful change in teaching practices. Knowledge gleaned from this research may be transferable to other health professional schools and other universities, nationally and internationally.

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A scoping review of training initiatives for supervisors of student research projects that are outside the higher degree by research context.

**Hart J**<sup>1</sup>, Yang M<sup>1</sup>, Kaur R<sup>1</sup>

<sup>1</sup>*University Of Sydney, School of Medicine*

### **Introduction**

Medical programs include research projects to cultivate research skills and promote evidence-based practice. The majority of medical students are research novices and require guidance from experienced supervisors. Supervisors for higher degree research (HDR; Masters/PhD) are usually required to undertake supervision training. However, effective research supervision is needed beyond the context of higher degree research.

### **Methods**

A scoping review was conducted using the Joanna Briggs methodology. Reports of training initiatives to support research supervisors to deliver student research projects were included, in the tertiary education context, including undergraduate and postgraduate coursework projects in all discipline areas. HDR supervision training was excluded. The specific research questions were: 1. What training programs are used to train supervisors of student research projects that fall outside the HDR context? 2. Are there specific skills that non-HDR research project supervisors need? 3. What training methods are used? 4. Which training methods are most effective?

### **Results**

Studies included in this analysis varied in their educational context, all were from universities, in science or health science. They report a diverse range of training practices across different educational contexts to support novice research supervisors. There were few training programs for non-HDR research supervisors (n=7). Training used a community of practice framework delivered in workshops. Training topics included mentoring training and pedagogy, including active learning theory, constructive alignment, and scientific teaching. The evidence presented for evaluation of training programs was generally weak, with self-report being used most often.

### **Discussion**

Training programs for non-HDR research supervisors are important to promote development of research supervision skills, however there is little data on the models of delivery or their effectiveness. A framework for practice and mentor quality should be used to develop and evaluate non-HDR supervisor training programs. Future studies should explore the effectiveness of supervisor training initiatives for non-HDR research projects.

## Interdisciplinary teaching squares enhance reflection and collegiality: a collaborative pedagogical approach.

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<sup>1</sup>University of South Australia, Clinical and Health Sciences Unit, , <sup>2</sup>Rosemary Bryant AO Research Centre. , <sup>3</sup>Teaching Innovation Unit

### Introduction

To explore the experiences of interdisciplinary Higher Educational Academics within Nursing, Midwifery, Pharmacy and Biomedical Science in the use of teaching squares as a formative, collaborative pedagogical tool to promote reflection.

### Background

To enhance academic teaching practice requires the provision of feedback to individual academics. This approach can be challenging for the reviewer, hence other less intimidating approaches are popular. One such approach is the teaching square. In this approach typically 4 other teaching staff are involved in observing their peers' teaching methods and then engaging in a cycle of personal reflection. Reflection on teaching practices of their peers can provide opportunity to improve their own teaching and in this study participants from related yet different disciplines were purposely connected and the benefits of this approach assessed.

### Methods

A qualitative descriptive design was used to explore the participants' experiences of undertaking interdisciplinary teaching squares through online questionnaires and focus group feedback opportunities. This study was undertaken between August 2022 to June 2023 at an Australian university. Sixteen academic staff members from Nursing, Midwifery, Pharmacy & Pharmaceutical science and Biological science expressed an interest in the project. Five participants elected not to continue citing time pressures and 11 staff members participated in the project. The survey data were analysed using descriptive statistics and the focus group interviews were recorded, transcribed and analysed thematically.

### Results

Triangulation of the findings resulted in the identification of four main themes: Teaching squares for professional networks; Perceptions of Safety; Stepping in and out of a reflective cycle; and Time Constraints vs. Time Value.

### Conclusion

The study aimed to explore the effectiveness of teaching squares in encouraging academic reflection on teaching and fostering a collaborative teaching culture within interdisciplinary higher education academics. An unexpected finding was the value and promotion of interdisciplinarity professional relationships and networks.

## Co-designing clinician educator career pathways

Ramirez Duran D<sup>1</sup>, Uahwatanasakul W<sup>1</sup>, Johnson C<sup>1</sup>

<sup>1</sup>University of Melbourne

### Introduction/Background

Entering the clinical education field can be daunting, as health professionals develop their professional identity by balancing and integrating their clinical and education roles <sup>1</sup>. Furthermore, career progression can be unclear and serendipitous, often without clear pathways, formal training or adequate support <sup>1,2</sup>. Clinician educators' lived experiences can help inform effective and sustainable strategies to support them. The aim of this research is to investigate the perceptions of a group of clinician educators in relation to their professional identity and career development.

### Methods

Following a social constructivist paradigm, this study is the first of a two-staged sequential mixed-methods project. We used a phenomenological approach to investigate the perceptions of a group of clinician educators in Australia (estimated n=150) using an online survey comprised of open and close ended questions based on relevant literature and validated scales. Data will be collected between February and April 2024. Quantitative data will be analysed using descriptive and inferential statistics depending on sample size and completion rate. Qualitative data will be analysed using Reflexive Thematic Analysis.

### Results/Evaluation

Drawing on preliminary findings from the survey, we will provide a snapshot of clinical educators' profiles in terms of their expertise, satisfaction and support levels, and their motivations to stay in teaching roles. Key preliminary findings about clinician educators' career progression will be analysed in relation to this information, with special considerations about diverse contexts and needs of this group.

### Discussion

The variety of work settings, professional expertise and opportunities for development amongst clinician educators present manifold pathways for career progression. Findings from the survey open a gateway to further explore how these pathways can be crafted and supported. This will enable a more comprehensive and nuanced understanding of how to support clinician educators in their current roles and career development in effective and sustainable ways.

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## Transformative Leadership in Cancer Care – Leadership Academy Online Modules

**Chan G**<sup>1</sup>, Barrett M<sup>1</sup>, Smith K<sup>1</sup>, Mew A<sup>1</sup>, Turner E<sup>1</sup>, Bumsted O'Brien K<sup>2</sup>, Krishnasamy M<sup>3</sup>

<sup>1</sup>Victorian Comprehensive Cancer Centre (VCCC) Alliance, <sup>2</sup>Olivia Newton-John Cancer Research Institute, <sup>3</sup>University of Melbourne

### Introduction/Background

The VCCC Alliance is partnership of 10 leading research, academic and clinical institutions, working together to fundamentally reshape the way we tackle cancer. As part of the VCCC Alliance Leading for Impact program, we are designing, developing and building a suite of online leadership modules, tentatively named Leadership Academy Online Modules (LAOM) on the Centre for Cancer Education (CCE), an interactive learning platform. These modules aim to provide accessible and flexible learning opportunities for the cancer workforce and consumers to develop their leadership skills. The modules focus on four non-technical skills, namely communication, coordination, cooperation and leadership.

### Methods

In designing the online leadership modules, we consulted with the VCCC Alliance stakeholders, namely clinicians, researchers, consumers and a leadership Subject Matter Expert (SME). Their inputs enable customisation of content, user-centred design while obtaining their buy-in. The modules were mapped to the VCCC Alliance Leadership Capability Framework (LCF). In consultation with the SME, a decision was made to map leadership non-technical skills (NTS) to the LCF (for alignment purpose) and to develop online modules based on the NTS.

### Results/Evaluation

Learners are required to complete an assessment of their understanding and competence of the NTS, at pre and post-completion of the modules. The assessments enable us to assess the learner's starting point (pre-completion) and measure the impact of the LAOM (post-completion). Success of LAOM is measured by an increase in learners' understanding and competence in their mastery of NTS following completion of the LAOM.

### Discussion

In our consultations with stakeholders, the group emphasised the importance of referencing to peer-reviewed articles and validated frameworks in LAOM, in providing credibility and enhancing its effectiveness in learning outcomes. Learners should also be given the flexibility to progress through LAOM in a non-linear manner, enabling them to choose which NTS they would like to learn first. While developing the content for the LAOM, the SME in collaboration with VCCC Alliance and our stakeholders also refined the LCF so that each domain reflects the capabilities associated with it. This project is currently a work-in-progress.

### References

*Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.*

## Children's Hospitals and Universities foster innovation in paediatric simulation

**Mangion D**<sup>1</sup>

<sup>1</sup>Sydney Children's Hospitals Network

### **Introduction/Background**

Simulation allows us the ability to practice skills in a low-risk safe environment that is as close to real-life as possible, devoid of real-life consequences, resulting in improved patient care. Paediatric task trainers aren't as commercially viable as adult task trainers, and are expensive or rudimentary, at times lacking realism. Rather than adapting adult models we are developing our own. Our goal is to create a Paediatric Task Trainer Kit containing the task trainers that include the blueprints, 3D files and how to guides. We believe the more real we can make the simulated learning environment, the better trained we are, the better the care we can deliver to our patients. Feedback received from clinicians and learners enables us to continue to enhance and improve the task trainers for clinical training.

### **Methods**

Our in-house Simulation Team is part of the Sydney Children's Hospitals Network (SCHN). We partner with the University of Sydney's School of Biomedical Engineering Students. Each semester we research current requirements in collaboration with clinical specialists from the medical units within the SCHN. As part of their major project, over a semester period (approx. 8 weeks), the biomedical student teams utilising research and design, develop and present prototype concepts. Our simulation team continue development from the in

### **Results**

From 2020 to 2023 we've created task trainers using 3D design software, 3D printing for structure, moulds incorporating silicone, and in some trainers, electronic componentry, and software control tablets. Paediatric task trainers developed have included, lumbar puncture trainer, pneumothorax trainer, articulating arm for pain response, intraosseous leg trainer, heel prick simulator, blood pump and an external ventricular drain simulator. Discussion Repeating the projects offered multiple solutions allowing a combination of ideas resulting in a better trainer. Time constraints collaborating with clinicians and available resources limited some development.

### **Discussion**

Repeating the projects offered multiple solutions allowing a combination of ideas resulting in a better trainer. Time constraints collaborating with clinicians and available resources limited some development.

## Evaluating the MCQ-based item-writing skills of undergraduate faculty in private dental college, Karachi

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### Introduction:

The multiple-choice question (MCQ) format is a common tool used in undergraduate medical education for assessing factual recall, problem-solving, and reasoning. However, MCQs often have item-writing flaws (IWFs), which can affect students' understanding and ability to answer questions. Insufficient training and knowledge of academic teachers in MCQ writing can lead to poor-quality questions that assess lower cognitive skills, impacting students' learning outcomes and the overall quality of education. The Liaquat College of Medicine and Dentistry, Department of Health Professions Education, has been working on enhancing the validity of on-format assessments in medical education in their context by improving undergraduate faculty's item-writing skills through faculty development workshops.

### Objective(s) :

- To evaluate improvement in the MCQ item writing skills of undergraduate faculty
- To assess the impact of feedback on the quality of the MCQs developed by dental faculty.

### Method:

**Setting:** Liaquat college of Medicine & Dentistry

**Study Design:** follow-up (cohort)

**Duration:** Six months after approval from IRB

**Sampling:** Non-probability convenience sampling

**Inclusion Criteria:** All BDS faculty

**Exclusion Criteria:** Participants who did not consent to participate

**Data Collection:** The data collection was structured in two distinct phases, utilizing pre- and post-validated questionnaires.

Phase 1: Participants were asked to construct an MCQ on the provided template & filled out a self-assessment feedback questionnaire shared via a Google form. The developed MCQ was evaluated on its technicality by medical educationists.

Phase 2: Based on the technical feedback, faculty were asked to make suggested changes. The activity ended with a post-activity questionnaire filled out by the faculty.

The two-phase approach allowed for a comprehensive analysis of the faculty's development in MCQ construction and their self-assessment capabilities.

**Data Analysis:** Inferential analysis paired t test done using IBM SPSS Statistic version 24 and for Descriptive, data was measured using frequency and percentage.

### Results and Outcomes:

The pre-MCQ exercise activity involved 71 faculty members, with 39.4% from basic sciences and 60.6% from clinical sciences. Post-MCQ exercise activity involved 63 faculty members, with 44% from basic sciences and 56% from clinical sciences. The study found significant differences in pre and post-MCQ activity in using SMART criteria to develop learning objectives, to correlate objectives with the question, to develop objective according to level of learner, to apply the knowledge of item writing flaws, to improve the lead in, to focus on one aspect of a concept/disease/condition.] , lead in has clarity for the learner, avoid usage of ambiguous terms (e.g. almost, never, frequent)] Option [All options are homogenous, to avoid the term "except" "all of the above" or "none of the above" options].

**Discussion and Conclusion:**

The study emphasizes the significance of faculty capacity building, particularly in Multiple Choice Question (MCQ) construction. Pre and post-training workshop assessments revealed significant improvements in various areas, such as aligning objectives with SMART criteria, correlating objectives with questions, and avoiding ambiguous terms. Similar findings were noted in studies from Rawalpindi and Karachi, indicating a need for enhanced item-writing skills. While notable progress was observed in some aspects, there was limited improvement in stem writing skills, aligning with a study from India, potentially due to shorter session durations. Saudi Arabian research demonstrated a significant increase in knowledge test scores post-workshop, aligning with the study's outcomes. The challenges in MCQ construction may stem from a lack of understanding of higher-order thinking and a tendency to focus on recall questions without clinical context. Regular training sessions are recommended to address these issues and mitigate the impact of unclear information. The study suggests that faculty, though proficient in academic roles, may vary in reading and writing abilities, emphasizing the need for ongoing training. The study advocates for frequent interactive faculty training sessions to sustain and enhance item-writing abilities. Long-term evaluation after three to four months or at the end of the academic year is proposed to assess skill retention. The research underscores the substantial impact of a single-day faculty training workshop and underscores the importance of ongoing support for faculty involvement in active learning.

## Examiners' scoring behaviour in a summative OSCE – a rapid initial analysis employing dashboards

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Understanding how a high stakes OSCE assessment performed is useful when making important progression decisions and informing quality improvement in OSCEs. Depending on access and timelines, detailed psychometric analyses may not be quickly available post examination. We explored whether a dashboard-style analysis could be employed to help understand OSCE performance. This dashboard was used, for example, to analyse one source of examiner variance, DRIFT, a time-based examiner effect wherein examiners progressively score higher<sup>1</sup> or lower<sup>2</sup> over the course of the assessment.

We designed a Microsoft Power BI dashboard that facilitated visual analysis of results at multiple levels (session, station, examiner) using dynamic charts that enable comparison and simultaneous filtering of multiple datasets. We used data from a summative 12-station OSCE that examined 191 final year medical students in a single day across six sites and two sessions by 123 examiners (19 of whom examined at both morning and afternoon sessions). To evaluate examiner scoring behaviour separately from examinee performance, we categorised the students into quartiles based on their overall OSCE score. We plotted this along with total and global scores and examinee rotation order to investigate scoring variance over time.

Possible DRIFT was identified for the OSCE where the morning session registered a higher average total score compared to the afternoon, which may indicate that examiners were more “hawkish” later in the OSCE. However, because simultaneous information about student variance was visible, the effect was most likely due to more lower quartile students being examined in the afternoon. A similar explanation was identified for possible DRIFT with individual examiners.

Our experience suggests that a dashboard can be used as a tool for rapid preliminary analysis of assessments. The dashboard, however, should does not replace detailed statistical analysis.

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- <sup>2</sup>David Hope & Helen Cameron (2015) Examiners are most lenient at the start of a two-day OSCE, *Medical Teacher*, 37:1, 81-85, DOI: 10.3109/0142159X.2014.947934

## Examiner preferences for OSCE feedback: exploring examiner behaviour in the selection of canned feedback comments

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<sup>1</sup>*The University Of Melbourne*

### **Introduction/Background**

High-quality feedback is integral to clinical education, and needs to be specific, balanced, and timely. Acknowledging the challenges in meeting these goals with OSCEs, The University of Melbourne utilises a bank of pre-written (canned) comments to provide individualised feedback. This study aims to explore examiner preferences in selecting these pre-written comments.

### **Methods**

Retrospective analysis of MD student assessment records was performed. The dataset comprised of 15 OSCE stations and included examiner ratings across assessment domains and comment selections (positive and negative framing). Data analysis included descriptive statistics, t-tests, and regression analyses to examine trends. Feedback statements were categorised as either generic or specific, and frequency of comment selection was explored by assessment domain and cohort.

### **Results/Evaluation**

The study reviewed 5057 OSCE stations completed by 1013 medical students across three cohorts (years 1 to 3). The number of comments selected varied by assessment domain and cohort and was positively associated with the number of available comments. Overall, positively framed feedback was more frequently selected, and linear regressions indicated a weak but consistent association between ratings of students' overall performance and number of positive and negative comments selected.

### **Discussion**

1 OSCEs have a key role in health professions assessment, and optimising feedback to ensure it meets the needs of the examiners and students is critical. While further qualitative investigation of examiner and student preferences and perspectives is required, our research supports the use of pre-written comments as part of the routine provision of feedback. Assessors' selections of pre-written comments are clearly aligned with student performance and are typically more efficient, consistent, and equitable than 'handwritten' comments. Strategies allowing for improved balance and the quantity of feedback provided may have utility for students and examiners in this context.

## Going beyond the Empirical: Unpacking Causal Mechanisms Programmatic Assessment using Critical Realist Frameworks

**Khanna P<sup>1</sup>**

<sup>1</sup>*The University Of New South Wales*

### **Background:**

Contemporary medical education innovations such as programmatic assessment are complex in nature and hence complexity-consistent approaches in evaluating complex interventions such as realist evaluation are becoming increasingly popular. Notwithstanding, realist evaluation has been critiqued in its positivist underpinnings and limiting the empirical findings to context-mechanisms-outcome configurations. Critical Realism is an ontological perspective that provides an emancipatory perspective to enable researchers in unpacking causal mechanisms that go beyond the empirical data. In this presentation, we describe the application of critical realist perspectives in understanding outcomes experienced by students and faculty in a large-scale implementation of programmatic assessment.

### **Method**

Data involved in-depth focus groups and interviews with year 1 and year 3 medical students, interviews with the faculty (learning advisors) and rapid narrative review of recent literature on implementation of programmatic assessment. Various modes of inferences (induction, abduction and retroduction) were used as methods for coding the data.

### **Results**

At the empirical level, we found significant mismatch and miscommunication between the intended program theories and reported outcomes. The underlying causal mechanisms involved three themes: *anomie* (sense of alienation and dysfunctionality); *agnosis* (superficial implementation without attention to structural agility and cultural adaptability) and *agenesis* (naïve, incomplete, and eclectic system of assessment without attention to underlying education design). Retroducing the real involved interplay between assessment structures and cultural systems that provided conditions (constraints and enablers) and conditioning (acceptance or rejection of new 'non-traditional' assessment processes) that impacted agency of students and faculty.

### **Conclusions**

Critical realist framework and methodological inferences of abduction and retroduction can provide more meaningful and contextualised insights into evaluating the outcomes of a complex phenomenon such as programmatic assessment which is not just an educational but also a socio-cultural change .

# Transforming a pharmaceutical compounding unit using competency-based assessment and universal design for learning (UDL): A mixed methods analysis

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<sup>1</sup>*Sydney Pharmacy School, Faculty Of Medicine And Health, University Of Sydney*

## **Introduction/Background**

Pharmaceutical compounding is a core competency for Australian pharmacists and requires the integration of a range of abilities, skills and knowledge. A competencybased learning and assessment approach is therefore most appropriate for this content. However, this does not align well with the current approach at our institution, where marks are assigned and students can pass the unit without demonstrating competence at key aspects. We therefore converted our pharmaceutical compounding unit to a grade only competency-based unit in 2023. To support this change and promote student engagement, we redesigned our online learning management unit site using the principles of universal design for learning (UDL) (1). Here, we evaluate the effectiveness of these changes.

## **Methods**

A range of data sources were used. Average number of attempts at each assessment was calculated and overall pass rates were compared pre- and post-implementation. We also utilised student evaluation surveys, comparing overall scores pre- and postimplementation and thematically analysing free text comments.

## **Results/Evaluation**

243 students completed the unit in 2023 and 26 (11% of the cohort) failed to meet requirements; this was consistent with previous years (fail rate 20% in 2020 and 7% in 2021). Some students required up to 7 attempts for assessment tasks. Student evaluation scores were positive and a slight improvement compared to previous years. Students identified immediate feedback on assessment tasks, the ability to learn from mistakes as they reattempted assessment tasks, assessment throughout semester that kept them up-to-date and encouraged cumulative learning unlike a final written exam and multiple formative assessment opportunities as positives of the unit.

## **Discussion**

The change to a competency-based unit provided a more holistic assessment of pharmaceutical compounding skills and the incorporation of UDL principles increased student preparation and engagement. Careful selection of relevant competencies and adequate time and space to allow for multiple opportunities to demonstrate competence are essential for successful implementation of a competency-based unit.

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## Authentic assessment in digital health education

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### Introduction/Background

Integrating authentic assessment in digital health has gained prominence as technological advancements reshape healthcare delivery and education. The literature review findings will be presented through case studies to explore the multifaceted landscape of authentic assessment within digital health, emphasising its application, challenges, and impact.

### Methods

A systematic search was conducted across PubMed, Scopus, EBSCO, and Engineering Village to identify articles focusing on authentic assessment in digital health. The inclusion criteria included studies published between 2000 and 2023 that emphasised diverse digital health contexts and assessment methodologies. Key themes were extracted using a qualitative synthesis. The findings were then used to develop authentic digital health assessment case studies.

### Results/Evaluation

The review identified that while diverse assessment strategies have been described, and while the authors of the included papers did not identify these assessments as authentic, we identified them as such. A diverse range of assessments in digital health spanned from traditional written assessments to telehealth interventions, mobile health applications, and virtual reality simulations showcasing the adaptability of authentic assessment across various technological platforms. Common themes identified included the alignment of assessments with real-world scenarios, the enhancement of critical thinking skills, and the fostering of interdisciplinary collaboration. Challenges, such as ensuring assessment authenticity in the age of ChatGPT and addressing technical limitations, were also identified.

### Discussion

The findings emphasise the need for tailored assessment strategies that align with the unique characteristics of digital health technologies. Furthermore, the review explores potential avenues for future research, such as developing standardised frameworks for authentic assessment in digital health and exploring innovative technologies to enhance assessment authenticity.

## Evaluating clinician feedback in WBAs

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<sup>1</sup>*The University of Western Australia*

### Background:

The new Work-Based Assessment (WBA) tasks utilising the new Entrustable Professional Activity (EPA) format through the collaborative multi-institutional network ACCLAiM was piloted by the UWA, Medical School in 2023. Feedback forms an integral part of the learning process (Burgess et al., 2020) with multiple outcomes informing progress, motivating learning and highlighting key areas for improvement.

### Summary and results:

In this new format, assessors are required to provide *feedback for learning* to the final year students in preparation for their internship. Feedback provided by assessors has proven to be a variety and this range has been tabulated as a continuum.

The presentation will examine the types of feedback provided by assessors and lessons learnt (so far) in the journey of the implementation.

### Take home messages:

- Feedback is an art that requires education to busy clinician assessors in order to provide effective feedback.
- Training and support are essential.
- Students are integral to the process of understanding feedback and requesting specific and targeted feedback.

A feedback framework/model will be developed (in progress) as a result of the findings to date which medical schools can utilise to provide assessors with education around feedback language.

### References:

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## Use of a formative mock examination in predicting Australian general practice licensure examination performance

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### Introduction/Background

The Royal Australian College of General Practitioners (RACGP) administers high-stakes summative licensure examinations for unsupervised independent Australian general practice. Examination failure can have adverse consequences including psychological stress and financial implications (1). The use of in-training assessments as predictors of summative or licensure exam outcome is of growing interest. These are generally early-training stage formative assessments aiming to identify registrars at examination-failure risk, and to facilitate remediation or other targeted support to improve performance and reduce subsequent examination-failure risk (2). There is potential to use similar assessments to evaluate potential candidates' examination preparedness.

### Methods

There are two RACGP licensing written examinations: the applied knowledge test (AKT) and key feature problem (KFP). The Mock-AKT, a formative assessment, was available to registrars (trainees) of an Australian GP vocational training organisation. The tool was assessed over 12 months from 2017 to 2018 against fellowship examinations held at that time, with repeat validation completed in 2021.

### Results/Evaluation

The Mock-AKT had robust ability to predict outcomes of the two written examinations, with excellent area under the receiver operating characteristic curves for both examinations (0.86 for AKT, and 0.82 for KFP). Mock-AKT scores were processed and used to provide medical educators with detailed and candidate-specific failure-risk information.

### Discussion

The Mock-AKT was part of a suite of data available to medical educators regarding registrars' progress and suitability to sit examinations. It provided a substrate for counselling on examination preparedness and, hence, candidacy. Medical educators have access to information including registrar's score bands and 'flagging' colours related to estimated percentage risk of examination failure for each of six score bands. With the Mock-AKT report being based on robust statistical prediction of examination performance and being delivered by a long-term trusted mentor we anticipated high registrar acceptability. The Mock-AKT program is likely generalisable to other medical specialist training contexts.

### References

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## Authentic assessment in the age of artificial intelligence

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### Introduction/Background

In dental clinical health programs, standardisation of student-patient interactions is impossible; this makes fairness of assessment challenging<sup>1</sup>. Additional artificial intelligence (AI) influence on fairness of written assessment outcomes makes equitable student evaluation a minefield<sup>2</sup>! We aimed to develop more standardised authentic assessment for our undergraduate program. This pilot study evaluated logistics, plus student/assessor/simulated patient opinions regarding the usefulness of newly developed assessment tools for clinical practice preparedness.

### Methods

Two newly-designed in-person tasks – one communication-based Objective Structured Clinical Examination (OSCE) with a simulated patient, one Direct Observation of Procedural Skills (DOPS) plastic tooth cavity preparation - were utilised as pilot assessment pieces. Eight self-selected dental undergraduates were assessed during the trials, with dental school staff involved as assessors and simulated patients. Anonymous Likert scale feedback and open-ended qualitative data were collected from all participants.

### Results/Evaluation

There was broad agreement that the OSCE was fair and reasonable for student's current level of learning (Assessors 100% BA, SD=0.5; Simulated patients 100% BA, SD=0; Students 100% BA, SD=0.47). Students indicated less agreement (62% BA, SD=1.1) with the OSCE being an authentic/realistic format of assessment for clinical aspects of the course, although Assessors (SD=0) and Simulated patients (SD=0.47) indicated 100% BA. Some students found this assessment format more stressful than in-person, closed-book written exams (63% BA; SD=1.3).

There was broad agreement the DOPS was fair and reasonable for the students' current level of learning (Assessors 100% BA, SD=0.43; Students 100%, SD=0.5). Assessors felt the DOPS was an authentic/realistic format of assessment (100% BA, SD=0); students, however, indicated less agreement (37% BA, SD=0.86).

### Discussion

Participants had diverse experiences with the piloted assessments but agreed that they were reasonable expectations for students' learning. Findings informed revisions to trialled tasks and a 2024 implementation of multiple OSCE/DOPS assessment opportunities (formative and non-graded pass) across our undergraduate program.

### References

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## What do physiotherapy students identify as important when designing a trauma-informed approach to peer-physical examination? A mixed methods action research study.

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### **Introduction/Background**

Peer physical examination (PPE) is a commonly used teaching practice in physiotherapy courses. PPE can risk student safety, particularly for students who identify as LGBTQI+, have a personal history of trauma, or are from diverse cultural, religious, and disability backgrounds. A trauma-informed care (TIC) approach to PPE is inclusive of all experiences and may reduce risk to students (Elisseou, Puranam, & Nandi, 2019). The aim of this project was to understand what Doctor of Physiotherapy (DPT) students identify as important when designing a trauma-informed approach to learning and teaching physical examination.

### **Methods**

In the first stage of a larger action-research project, Doctor of Physiotherapy students were recruited via convenience sampling to identify TIC topics they perceived as important to include for the teaching of PPE. Students completed a survey (n = 28) to rank 11 topics derived from the literature, and five students participated in two 60-minute follow-up focus groups.

### **Results**

Survey results demonstrated that students perceived all 11 TIC topics as important, with open-ended responses revealing emphasis on meaningful consent processes and modelling of TIC principles by tutors. Findings from the focus groups further highlighted the importance of consent processes being authentic and meaningful, and fostering a setting where students have more autonomy concerning PPE.

### **Discussion**

These findings can be applied to teaching and learning of PPE in physiotherapy. By integrating these insights into curriculum design and hands-on assessment strategies, educators may enhance the effectiveness of PPE instruction, potentially leading to improved student experience and subsequently better patient outcomes. Additionally, this approach could serve as a model for improving practices in other health professions that require the teaching of hands-on physical examination.

Elisseou, S., Puranam, S., & Nandi, M. (2019). A Novel, Trauma-Informed Physical Examination Curriculum for First-Year Medical Students. *15*, 10799. doi:doi:10.15766/mep\_2374-8265.10799

## Risks and rewards when we research our own: safeguarding students and supervisors in peer-led educational research

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### Introduction/Background

Increasingly, health professions students are conducting educational research, whether for interest, future careers, or as a course requirement. Often their research involves other students as participants in surveys, interviews, and other observational studies. Drawing upon our experiences as a researcher with lived experience and expertise, and as supervisors of students researching medical education, we will explore issues, critical events, and their implications for ethical and educational obligations of supervisors and institutions.

### Methods

We present our experiences and the long-term implications from conducting and supervising a qualitative interview study on student mental health. Eleven medical students with self-identified mental ill health consented to in-depth interviews about their experiences before and after entering medical school. De-identified interview transcripts were analysed thematically using concepts of professional identity development. During the study, the student researcher met weekly with one or both supervisors.

### Results/Evaluation

Themes included the influence of environmental and social expectations, struggles with identity and stigmatisation, help seeking and recovery.

### Discussion

Peer-led research has many benefits; improved participant engagement, deeper understanding of student experiences, students as recognised research partners and experts by experience, and translatable findings to improve learning. Yet, particular harms may arise; researching mental illness could trigger symptoms, and there is no gatekeeper or boundary between student researcher and peer participants. Codes of research ethics and integrity, texts on researching sensitive topics or with vulnerable populations offer limited guidance for peer-led research involving students as participants.

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## Allied health LGBTQI+ student experiences during clinical placement

**James D**<sup>1</sup>, Shields M<sup>1</sup>, Kaur S<sup>1</sup>

<sup>1</sup>*University of Newcastle*

### **Introduction/Background**

Allied health programs typically involve professional placements of 6-12 weeks in a clinical setting. Other studies have demonstrated that these can cause anxiety and stress due to financial strain, academic and performance worries, and difficulties fitting in to new workplaces. This study aimed to explore the lived experiences and additional challenges faced by allied health students who identify as LGBTQI+ (lesbian, gay, bisexual, transgender, intersex, queer and all other sexual identities) whilst on professional placements.

### **Methods**

Semi-structured interviews were conducted with students recruited from allied health programs from a regional Australian university, who self-identified as LGBTQI+. Interviews were conducted on Zoom and the audio recorded. Following transcription of the recordings, IPA (interpretative phenomenological analysis) was employed as the data analysis method, which seeks to investigate how individuals interpret and give meaning to their experiences.

### **Results/Evaluation**

Three interviews were conducted with students in March 2023. Five group experiential themes were developed that characterised the challenges and conflicts faced by participants including: the decision to disclose sexual identity; conforming to heteronormativity; sexual identity; staff support and guidance; and future career impacts. Participants expressed feeling anxious and nervous whilst on placement due to concerns regarding their sexual orientation and potential discrimination by staff and patients.

### **Discussion**

Professional placements can be challenging for allied health students due to potential financial and emotional strains. This research has identified that LGBTQI+ students face additional challenges whilst on professional placements that may impact their performance and mental health. The findings will allow us to identify and potentially develop strategies to better support and prepare students and clinical supervisors prior to and during professional placements.

## Inclusive health professional education, are you ready?

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### **Introduction**

Identifying and understanding current structural and attitudinal barriers to inclusive health education is a vital steppingstone to developing, advancing, and disseminating leading practices to facilitate the inclusion of people with disabilities in health professions. The aim of this project is to understand how health professional educators (HPEs) perceive and engage with students with disabilities in health education.

### **Methods**

An online survey has been developed and HPEs in Australia have been invited to participate. The survey includes an education focused tool which has been adapted to a health profession context, to measure HPEs perceptions about inclusion. The survey asks HPEs views on inclusive education, attitudes towards students with disabilities, and their knowledge and skills in teaching accommodations.

Results: preliminary results from this Australia wide survey will be presented and expand the conversation with session participants and invite them to contribute to the survey data. The survey data analysis will identify barriers and gaps in inclusive health education in order to develop strategies to improve access and opportunities for students with disabilities, contribute to creating a more inclusive and diverse health professional workforce.

### **Discussion**

Preliminary findings from the early rounds of recruitment will be presented to grow the discourse on inclusive HPE practice. Creating a culture and climate toward disability inclusion in health professional education will by extension, improve accessibility to health care, grow the representation of people with disability in the health professions and promote inclusivity in the wider community.

## Desirable personal characteristics in shaping rural and underserved medical careers: A scoping review

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### Introduction

Recommendations advocate for context relevant and evidence-based approaches in selection and training to address medical workforce shortages in rural and underserved areas. Personal characteristics have been linked to rural medical careers and potentially predict rural retention. However, there is limited evidence regarding such characteristics among medical students and doctors. We conducted a scoping literature review to address this gap using the following research question: what is known about personal characteristics in medical students and doctors engaged in rural and underserved training and careers?

### Methods

This scoping review employed PRISMA-ScR framework. Database searches were conducted on Medline via Ovid, Scopus, ERIC, PsycINFO, CINAHL, and Google Scholar and included English Language articles up to August 2023. We screened for publications discussing personal characteristics empirically, pertaining to physicians or physician trainees of any level in rural and underserved areas. Two independent reviewers screened records at each stage and selected articles describing how personal characteristics are linked with rural or underserved careers. Results were analysed thematically.

### Results

Of 1508 articles, 35 articles met inclusion criteria and were reviewed in full; 19 studies were conducted among physicians and 16 on medical students; 12 were conducted in Australia. A range of feelings (e.g., sense of belongingness), thoughts (e.g., self-efficacy beliefs) and behaviours (e.g., tolerance of ambiguity) were identified as desirable for choosing, retaining, and satisfaction in rural and underserved careers. A sense of belongingness was frequently observed among rural doctors, but never among medical students. Moreover, evidence on personal characteristics of medical students and doctors in rural and underserved Australian contexts is extremely limited.

### Discussion

Contextual evidence on desirable personal characteristics shaping rural and underserved medical careers at each stage of training is required to design effective selection procedures and impactful training programmes. Generating relevant evidence on medical students and doctors in rural and underserved Australia is a priority.

## Fictional patients in problem-based learning cases who look different are diagnosed differently

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<sup>1</sup>*University Of Hawai'i John A. Burns School Of Medicine*

### **Introduction:**

Implicit bias refers to attitudes that a person may hold but not consciously recognize. These biases influence the way we interact with others. Implicit biases may also influence the way physicians diagnose and treat patients, and may play a role in perpetuating health care disparities. In this pilot study, we investigate whether characteristics such as ethnicity and sex of fictional patients influences how medical students approach diagnosis.

### **Methods:**

During the second year of medical school, two problem-based learning cases began by presenting a patient whose chief complaint was unilateral vision loss. One patient was presented as a Caucasian female, and the other as an African American male. Based on this information, each medical student was asked to submit their leading diagnosis on a Google form. Over the course of 2 years, 125 responses were collected from the first case, and 127 from the second. The diagnoses from responses were organized and analyzed to identify any significant differences in response frequencies between cases.

### **Results:**

Response frequencies for stroke and vessel occlusion diagnoses were significantly greater ( $p = 0.021$ ,  $p = 0.034$  respectively) in the case of the African American male presenting with unilateral vision loss, while response frequencies for cranial nerve lesion and temporal arteritis diagnoses were significantly greater ( $p = 0.016$ ,  $p = 0.014$  respectively) in the case of the Caucasian woman presenting with unilateral vision loss.

### **Discussion:**

Apart from the chief complaint, the patient's sex and ethnicity were the only clinical data available to the students, illustrating that factors other than the chief complaint played a role in their clinical judgment. These factors may have been the patient's sex or ethnicity, but students may also have made educated guesses based on the course curriculum. Further study controlling for order and other effects may be illustrative.

## Describing Diversity in case-based learning

**Wilcox H<sup>1</sup>**, Parker A<sup>1</sup>

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### **Introduction/Background**

The 2024 Australian Medical Council accreditation standards for primary medical programs emphasise the importance of curriculum being informed by the healthcare needs of diverse patient communities, through a process of consultation with these community groups (1). In response to the standards, we have initiated a project to integrate and expand on diverse patient representation in the UWA MD. Our students encounter patients from diverse community groups when on clinical placements, but currently there are limited opportunities for students to develop required skills in case-based learning and simulated patient encounters prior to clinical experience.

### **Methods**

Our review of 110 cases used for case-based learning sessions in the MD years showed that there are opportunities to improve representation of diverse patient groups.

### **Results**

Our project has identified, defined and described the diverse patient groups who should be both represented in the curriculum and consulted with regarding the curriculum. Characteristics identified include gender, sexual orientation, geography, socioeconomic status, relationship status, family structure, ethnicity/culture, First Nations origin, refugee/migrant status, spirituality, employment status, disability, mental health history and neurodiversity.

Next, we will undertake curriculum review and gap analysis to identify current learning and teaching that address healthcare needs of diverse patient groups, and engage community, staff and student in consultation to determine the nature of the curriculum modifications to achieve representation of diverse patient groups within planned case-based learning sessions. We will then prospectively, systematically generate new planned case-based learning with this representation at parity with the Australian population, and develop an inclusive process to recruit and train patient volunteers and tutors.

### **Discussion**

This methodology aligns with numerous frameworks proposed internationally for health professional education institutions to review their programs and policies regarding social accountability. We will complete this process by June 2024 and look forward to presenting outcomes and our reflections at ANZAHPE.

### **References**

Australian Medical Council. Standards for Assessment and Accreditation of Primary Medical Programs [Internet]. Kingston (ACT): Australian Medical Council Limited; 2023 [cited 11 February 2024]. 28p. Available from: <https://www.amc.org.au/accredited-organisations/review-of-accreditation-standards-for-primary-medical-programs/>

## Art-led learning: Can looking at art make us better health clinicians?

**Douglas S<sup>1</sup>**

<sup>1</sup>*Flinders University*

### Introduction

Art-led learning is an engaging learning and teaching methodology that has been found to promote critical thinking skills, empathy, cultural safety practices, teamwork, clinical observation skills and acceptance of diversity of thought (Monahan et al., 2019; Obara et al., 2022). Healthcare students are supported to become reflexive clinicians and to provide meaningful person- and family-centred care to patients across the lifespan continuum. The use of art in healthcare learning also engages students in to be active participants in their learning and inspires an improved sense of well-being and improved levels of self-awareness (Hartigan-Rogers & d'Eon, 2023).

### Method

Art-led learning was incorporated into the Flinders University Bachelor of Nursing first-year topic "Communication for Nursing," in consultation with the Flinders University Museum of Art (FUMA). Students participated in activities based on experiential learning practices of observing thoughts, feelings and reflections when interacting with selected artwork (Tomkins & Ulus, 2016), with guidance provided by academic staff and culminating in a group presentation.

### Discussion

The use of art as an icebreaker to group discussion was effective, providing students with neutral objects outside of themselves to concentrate their observations on and communication with one another. Students were observed to engage with one another in authentic ways, leading to strengthened team connectivity. Art-led activities have been identified to inspire enhanced learning of values such as care and empathy (Obara et al., 2022) and improving critical thinking and observational skills (He et al., 2019). Final group presentations demonstrated insight on diversity of thought and collegiality amongst many students.

### Conclusion

Students displayed active learning in communication skills and applied the concepts of person- and family-centred care to through the use of art and associated activities in the classroom. Improved learner engagement and team connectivity was observed, supporting professional development towards becoming holistic and reflexive clinicians.

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## Unlocking student learner types: The key to understanding diverse educational experiences, motivation, engagement, and success

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### **Background:**

Clinical health science students value their tertiary educational experience, however face challenges due to competing commitments that can hinder their motivation, engagement, and success. The diversity of students learning needs presents a challenge for educators. Deci and Ryan's (2017) self-determination theory (SDT) emphasises the importance of the three foundational needs of autonomy, relatedness, and competence in relation to motivation and engagement. Understanding the factors that influence students' needs and motivation in tertiary education is the key to informing the development of innovative teaching and learning approaches, assessment methods, and course designs to facilitate student success. This study aimed to explore the educational experiences of undergraduate health science students through the framework of SDT.

### **Methods:**

This study employed a mixed-methods design with descriptive quantitative analysis of survey responses to identify student learner types, motivation, engagement, and achievement. Qualitative analysis of open-ended questions was also undertaken. Participants included 228 first and second year students enrolled in two undergraduate health science courses at an Australasian university.

### **Results:**

The findings revealed differences in student learner types, motivation, engagement, and assessment achievement. The significance of autonomy and support, coupled with the implementation of varied learning and teaching approaches tailored to accommodate diverse learner types and motivations, emerged as key factors contributing to enhanced student engagement and success.

### **Discussion:**

Understanding the diversity in students' educational experiences is essential for unlocking responsive strategies that embrace a student-centred pedagogy for course design. This involves consideration of different learner types and motivations to maximise student engagement through the implementation of innovative approaches to teaching and learning. By adhering to the principles of SDT, educators can design courses and assessments that acknowledge student diversity. This study contributes valuable insight into the enhancement of students' educational experience and may hold relevance for application in other educational contexts.

### **References**

Ryan, R. M. & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publishing.

## Inclusion oral Health - A content analysis of Australian Oral Health Therapy Curricula

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### **Introduction:**

Awareness of oral health (OH) injustices is integral to the development of undergraduate students in Australia. OH programs in Australian universities aim to foster this development by incorporating fundamental theoretical frameworks. University students need to engage deeply with their epistemological perspectives, not only to meet course requirements but also to establish themselves as reflexive practitioners. Teaching academics must have a comprehensive understanding of their students' identities and their connection to the world to effectively support their learning journey. This study examines the learning objectives of Australian universities' Oral Health Therapy curricula and the overarching qualities of graduates from these programs. The research employs a content analysis approach, focusing on terms related to "Inclusion Oral Health," as defined by Freeman et al. (2020), which emphasizes an informed understanding of social exclusion's production and experience, along with the intersectionality of exclusion and discrimination affecting oral health outcomes.

### **Methods:**

Methodologically, content analysis involved data collection from tertiary institutions' websites, specifically targeting course learning objectives, and graduate qualities. The analysis aimed to uncover prevalent themes, inclusions, and exclusions within the curricula.

### **Results:**

The results reveal that terms such as social injustice, social exclusion, and cultural competency are infrequently integrated into oral health curricula nationwide. Furthermore, Aboriginal and Torres Strait Islander perspectives are predominantly present at the institutional rather than programmatic level.

### **Conclusion:**

In conclusion, the findings suggest that significant modifications are necessary for current Australian Oral Health programs to align with principles of inclusivity

## Asking the older person: Co-designing student placements in residential aged care

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### Introduction/Background

Workforce challenges are facing the aged care sector.<sup>1</sup> Effective workforce planning is essential to meet future demands, which includes the need for health professional students to develop graduate capabilities focussed towards working with older people. This project sought to collaboratively co-design meaningful student placements in residential aged care (RAC) with active input from older people, their families, and RAC staff. There is growing evidence that suggests actively engaging health consumers in the design of health professional student education can enable more impactful learning outcomes.<sup>2</sup>

### Methods

The co-design approach was situated within a participatory action research methodology to maximise the opportunity for meaningful and sustainable outcomes. Interviews were conducted with 37 participants across three RAC facilities in Victoria to identify the needs and experiences of older people living in RAC, and to explore the opportunities for students to enhance their care. Concepts drawn from the data informed the development of preliminary student placement models, which were modified and validated through further consultation with participants.

### Results/Evaluation

Interviews identified that meaningful engagement between the older person and students through a placement experience was valued to support self-determination and social connection, and to address individual wellbeing and care needs. As a result, four novel student placement models were designed in collaboration with older people, RAC staff, and University stakeholders that prioritised the needs of the older person whilst aiming to maximise student learning. All four models will be piloted and evaluated during 2024.

### Discussion

The co-design process has framed the creation of health professional student RAC placement models that overtly centre the needs of the older person whilst concurrently enabling student capability development. Co-design has been a valuable approach to inform the development of curricula that has the potential to align with the needs of all stakeholders.

### References

1. Royal Commission into Aged Care Quality and Safety. Final Report: Care, Dignity and Respect. Commonwealth of Australia. 2021.
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## Improving Transgender Health Education – developing an authentic Transgender Health focussed Scenario Based Learning (SBL) activity through combined perspectives

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### Introduction/Background

Contemporary medical school curricula increasingly strive to equip students with knowledge and skills to address health inequities. Transgender Health is a recognised area of need with significant disparities still in existence, and is traditionally underrepresented in medical education<sup>1,2</sup>. In 2023, The University of Adelaide commenced creation of a novel Transgender Health focussed 'Scenario Based Learning' (SBL) case for medical students. The curricular goals were to use the SBL case as a vehicle to demonstrate best practice approaches to providing healthcare to the transgender and gender diverse community, and to improve the competency of future doctors working with trans patients.

### Methods/Objectives

A multidisciplinary approach to development was undertaken, to ensure a collaboration which incorporated clinical, pedagogic, and lived experience expertise. The SBL case follows a fictitious patient from initial discussion of gender identity with a doctor, through to establishment of gender affirming hormone therapy. The broad perspectives of expertise ensured a holistic approach, combining clinical guidelines (e.g. 'AusPATH' Standards of Care) and peer resources (e.g. 'TransHub') with lived experience insight, to develop an authentic scenario.

### Discussion

The SBL explores key themes of inclusive language; social, legal, and medical gender affirmation; and specific health needs of the transgender and gender diverse community. The collaborative approach was crucial in creating a rich learning experience that holistically explores the needs of the transgender and gender diverse community. Establishing Transgender Health content in this way also helps to reduce the cis-normative biases currently present in health systems, and is a vital step towards improving health outcomes for trans patients more broadly<sup>2</sup>. This provides an example as to how educators could seek to incorporate Transgender Health teaching into their own curricula, though further research is required to establish the optimal educational interventions within this space<sup>1</sup>.

### References

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## Application of Auscultation-Virtual Reality (Ausc-VR) and Mirrored electronic Medical Records (MeMR) to enhance student learning in cardiorespiratory physiotherapy course development.

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<sup>1</sup>UNSW

### Background

Auscultation is one of the core skills physiotherapy students must learn to assess patients' respiratory status. Most students learn how to navigate patient electronic medical records (eMR) during hospital placement and often find it challenging. There is some evidence to suggest that usage of eMR be embedded within university program<sup>1</sup>.

### Objective

To develop and utilise Ausc-VR and MeMR to enhance students' learning experience, engagement and participation in practical class.

### Methods

A MeMR will be created using Articulate 360 Storyline to mirror eMR in NSW hospitals. Cardiorespiratory patient case studies with relevant histories, progress notes, radiology and pathologies will be added to the platform, replacing "traditional" case study presentations in Word or PowerPoint format.

Ausc-VR will be developed and co-designed in collaboration with the UNSW Media & Immersive Team for Physiotherapy students in Cardiorespiratory practice course using Unity as the game engine.

The students will wear MetaQuest headsets using the controllers to position and listen to a range of lung sounds according to the case-based scenarios that they had read in the pre-practical activity.

The Ausc-VR and MeMR will be delivered using the following steps: 1) A lecture that includes the physiology of auscultation and breath sounds; 2) pre-practical activity with "how-to" navigation of MeMR with patient case studies and auscultation demonstration video. In the practical session, the class (appx 24 students) will be split into 2 groups, 1 group will participate in Ausc-VR first, while the second group will practice performing auscultation on each other, after which then they will swap the activities. The students (total n=122) will be invited to complete a satisfaction survey before the end-of-term exams.

### Results/Evaluation

The survey will identify the impact of utilising Ausc-VR and MeMR in students' learning, satisfaction and engagement in the course. Ethics will be obtained from UNSW.

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## Clinician and student perspectives on gender and sexuality curriculum in medical school

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### **Introduction/Background**

LGBTQIA+ communities face health disparities due to social and cultural understanding of gender and sexuality. Additionally, lack of physician understanding of gender and sexuality and bias negatively influence quality of care, ultimately affecting health outcomes of LGBTQIA+ communities. Despite the importance of gender and sexuality teaching, significant gaps exist in medical schools globally resulting in underprepared graduates. Better teaching of gender and sexuality can improve students' future clinical practice and ensure students deliver patient-centred care. This project explores inputs from clinicians who treat LGBTQIA+ communities and current medical students on improving gender and sexuality curriculum through codesign with multiple stakeholders.

### **Methods**

Semi-structured, in-depth interviews were conducted with seven medical students and nine clinicians. Data collection focused on how prepared participants felt to treat LGBTQIA+ people, recommendations to improve gender and sexuality curricula and potential barriers to codesigning curricula. Data were thematically analysed.

### **Results/Evaluation**

Clinicians and medical students (including those who identified as sexuality diverse) felt underprepared to treat LGBTQIA+ communities during medical school. Both groups highlighted the need for consistent engagement and clinical exposure to these communities during medical training. While both groups were enthusiastic about codesigning curricula, time constraints, prior negative community experiences, and lack of clinical opportunities in treating LGBTQIA+ communities were cited as barriers.

### **Discussion**

Lack of confidence and preparedness in treating LGBTQIA+ communities in current and former medical students illustrates gaps in teaching gender and sexuality across different Australian medical schools. Clinicians reiterated the need for reflective practice and empathetic communication during medical training, promoting concepts such as equity and allophilia as critical to student preparedness to treat LGBTQIA+ communities. Improving gender and sexuality curricula through codesigning with clinicians, medical students and stakeholders including academics and community members provides a collaborative, holistic approach to curriculum codesign. Findings are adaptable for medical schools in diverse settings.

## Approaches to teaching gender and sexuality in undergraduate medical education: A scoping review

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### Introduction/Background

The health of LGBTQIA+ people require substantial attention in undergraduate medical education. These communities experience significant health disparities and are less likely to access health care due to stigma and discrimination. Despite the importance, gaps exist in teaching LGBTQIA+ topics in medical schools worldwide. This study aims to understand current research describing LGBTQIA+ teaching content and pedagogical approaches in undergraduate medical education worldwide.

### Methods

Arksey and O'Malley's five stage framework was followed for the scoping review. Database searches of MEDLINE (OVID), EMBASE (OVID), CINAHL (EBSCO), ERIC (ProQuest), and SCOPUS between 1 January 2000 and 5th September 2023 was conducted. Of the initially identified 2,393 articles, 59 were included in the review.

### Results

The majority of articles were published in the USA with more than half published between 2020 and 2023. Most teaching activities allocated between one to six hours of teaching time, combining didactic curriculum with approaches such as patient panels, role-plays, case-based scenarios, and group discussions. Learning Objectives mostly fell within the first three levels of Bloom's taxonomy<sup>b</sup>: remember, understand and apply. Most teaching focused primarily on terminology, definitions and sexual history taking. More than a third of the included studies focused on transgender health.

### Discussion

Findings illustrate diverse strategies in implementing LGBTQIA+ health curriculum. Despite a recent increase in gender and sexuality teaching, limited time is allocated to these topics, much of which is focused on the first year of medical training. Although foundational knowledge of LGBTQIA+ terminology and definitions of gender, sex, and sexual orientation are important, other critical learning aspects such as students' reflection of own values, empathetic and non-judgemental patient care remain largely overlooked. The dearth of published literature on LGBTQIA+ teaching from the Asia-Pacific, African and South American contexts raise questions of the uptake of these topics amongst medical schools in these regions.

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## Radiation therapy students' perspectives on what it means to be a radiation therapist

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### Introduction/Background

The Bachelor of Radiation Therapy (BRT) programme has tended to evolve in reaction to external drivers and factors rather than due to a vision for supporting radiation therapist (RT) learning or a particular educational theory. The aim of this study is to quantify the perspective of an entire student RT cohort, to determine if the themes elicited in our previous qualitative study are shared by the majority of students.<sup>1</sup>

### Methods

Using the coding structure from the qualitative data previously reported,<sup>1</sup> we developed a 24-item survey consisting of statements about the BRT. Participants were students enrolled in the BRT at the time of the study. Data were analysed first using descriptive statistics to develop an understanding of the statements that students agreed with most strongly. The data were then analysed using hierarchical item cluster analysis to explore the underlying factors in the data.

### Results/Evaluation

Out of a population of 75 students, 53 (71%) students completed the survey. Students most strongly agreed with statements focussed on lifelong learning and role models for learning. Cluster analysis uncovered a five-factor cluster. These factors were named: behaving as a RT, becoming a RT, the role of the RT, learning to be a RT, and the role of the student in learning.

### Discussion

The responses of students to the quantitative survey mirrored the perspectives of the focus group in terms of where the strongest agreement lay, as well as where there was agreement regarding the BRT and where there was a continuum of understanding and belief within the student population. We were also able to show that rich qualitative data is a strong basis for the development of more quantitative measures to probe specific aspects uncovered by the qualitative data.

### References

Kane, P., Gladman, T., Stein, S. & Timmermans, J. A. Investigating New Zealand radiation therapy student perceptions about their degree curriculum. *BMC Med Educ* 22, 892 (2022).

# Investigating the effect of an undergraduate primary care program on professional identity, feedback literacy, tolerance of uncertainty and readiness for interprofessional learning

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## **Introduction/Background**

Considered critical to development as a physician and general practitioner, are tolerance of uncertainty (1) and capacity for interprofessional learning and work. The primary care program is delivered to undergraduate medical students in their final years at UNSW. Unlike many hospital-based sub-specialist rotations, the primary care program has a strong focus on community-based placement with emphasis on consultation skills and appreciation of teamwork processes (2). Assessments are focused on observed consultations, a role play assessment, presentations to other students of clinical cases and reflections on team care processes and completion of case logs of cases with self-identified need for further learning. We aimed to determine whether exposure to these elements in the primary care rotation, and restructuring the course to target feedback processes, helps improve student feedback literacy, tolerance of uncertainty, readiness for interprofessional learning and overall professional identity. This is especially important knowledge in the context of declining interest in general practice as a career.

## **Methods**

Pre- and post-course questionnaires will be administered to 40 students with questions focusing on the domains on feedback literacy, professional identity, tolerance of uncertainty and interprofessional learning. Analysis will be quantitative and qualitative, with the use of validated scales enabling statistical analysis of Likert-type responses and free text responses to questions posed in each domain analysed thematically.

## **Results/Evaluation**

Results will centre around the feedback received as well as results of the use of validated scales including the feedback literacy behaviour scale, clarity of professional identity, medical student and junior doctor's tolerance of ambiguity scale, growth mindset scale and readiness for interprofessional learning.

## **Discussion**

The findings from this study will help to inform about the impact of one of the few community-based undergraduate placements where students engage more comprehensively with patient consultation and management in the context of a healthcare team. The findings will inform design of the current course and future curriculum in the context of declining interest in general practice as a career.

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## Fostering Leadership Across Systems in Health (FLASH)- how to build research capacity for clinicians.

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**Introduction:** Research within healthcare environments enhances patient outcomes. Research capabilities of clinicians (medical, allied health and nursing and midwifery) vary, with research identifying nurses expressing lower confidence levels. Previous research published from our local health district demonstrated lower confidence for nurses in initiation and completion of ethics applications, publication process, applying and securing research funding, and providing research mentorship to colleagues (*Lee et al*). The FLASH program was developed to enable aspiring clinician-researchers to develop skills and confidence to drive improvements benefitting patients, staff, and communities. It was recognised that research leadership skills are lacking, and significant barriers exist.

### **Methods:**

The FLASH curriculum was co-designed and co-delivered by research experts and health educators, implementing experiential learning to maximise the transfer of learning during each of the segments e.g. Q&A panels with 'the lived experience as a researcher' and skill learning activities. Topics included co designing with the consumer, academic presentations, support services, planning for impact, mentoring, culminating in a final 'bringing it all together' activity. The course was delivered over two days.

### **Results:**

Almost all participants completed the post course evaluation via MS Forms anonymously. (31/32). The majority of participants (94%) reported awareness of research had increased, 81% were inspired to commence research aimed at publication/presentation and 94% were very satisfied with the research workshop. Free text comments were added to all feedback forms, and all were of a positive theme. Typical responses were "*Fantastic day, great content*", "*Very well organised*", "*Enjoyed meeting the presenters*".

### **Discussion:**

Research education is fundamental for clinicians and the FLASH workshop has filled a vital gap. The success of the program has resulted in ongoing funding. Research education and support is vital to build capacity for nurses and midwives. It is proposed that FLASH be translated and scaled to other entities of the health system.

## Promoting Successful Transitions: Integrating Social-Emotional Learning in Higher Education

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There is a growing recognition of the importance of social-emotional learning (SEL) in enhancing learners' overall development and preparedness for the workforce. However, very little emphasis is placed on integrating social-emotional health and work readiness in educational curricula across tertiary education institutes. Thus, this study aims to explore the perspectives and experiences of young adults pursuing tertiary education in Malaysia regarding their social-emotional health and work readiness.

### **Methods:**

Employing a Constructivist Grounded Theory approach, this study investigates the perceptions of young adults in Malaysian tertiary education on their social-emotional health and work readiness. Semistructured interviews and focus group discussions (FGD) were conducted among young adults aged 18 to 25, encompassing both local and international students. Critical insights emerged regarding the effectiveness of current educational practices in fostering social-emotional health and work readiness among young adults in higher education.

### **Results:**

The findings highlight a disconnect between intended educational outcomes and students' recognition of key transferable skills, as well as challenges related to student reflection and anxiety surrounding workplace readiness. There is a recognized need for tailored educational practices that consider multicultural contexts in non-WEIRD populations. Ultimately, this research advocates for comprehensive SEL policies that address the unique needs of the diverse student body in multicultural populations, promoting holistic development and successful transitions into the workforce.

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## Cultivating connection and community among health profession educators in a metropolitan health service

**Simpson J**<sup>1</sup>, Boniwell K<sup>1</sup>

<sup>1</sup>*Eastern Health*

### **Introduction/Background**

Traditional profession specific avenues for professional development may not provide educators with sufficient opportunities to develop skills in health professions education. An allied health and nursing educator team responsible for providing coordination, coaching and educational support to pre-registration clinical placements in a metropolitan health service identified a need for professional development. A new initiative is being trialled, combining professional development, collaboration and common learning needs with a virtual community of practice.

### **Methods**

An initial survey identified and prioritised learning needs, measured confidence across common areas of education practice and determined optimal scheduling. Grounded in community of practice theory, regular protected time has been implemented where members with common goals are brought together to share knowledge in a virtual community of practice. Team members share the responsibilities to facilitate professional development and lead community of practice discussions.

### **Results/Evaluation**

While the project aimed to deliver team education, initial observations have identified unanticipated learning needs for virtual teaching and facilitation techniques. Additional role modelling from experienced educators and the development of a facilitation guide to support virtual reflective discussions, questioning and evaluation has been implemented. Now expanded to foster connection between dispersed education teams, evaluation of the community of practice effectiveness, satisfaction, and lessons from the project implementation will be reported.

### **Discussion**

A virtual community of practice may be an effective way to implement continuing professional development to an interprofessional team of educators within a large health service. Virtual delivery may enable connection across a dispersed group of educators and requires skilled facilitation. Identifying learning needs across a diverse professional group and ensuring appropriate challenge for both novice and experienced educators should be considered.

# Title: Assessing the Effectiveness of an Online Learning module in Improving the medication Knowledge among Primary Healthcare Nurses in Singapore.

**Chua W<sup>1</sup>**

<sup>1</sup>*National Healthcare Group*

## Background

Background Primary Healthcare nurses must possess a thorough understanding of the common medications used in Polyclinics.

To ensure that their knowledge remains current, a mandatory online module with comprehensive quizzes are required.

## Aim

This study aims to evaluate the nurses' online learning experience on medication knowledge in Primary Healthcare.

## Methodology

The study utilized a quantitative, descriptive cross-sectional design to evaluate the learning experience of 253 nurses who completed an online learning module and quizzes, then followed by a survey. The survey had five categories with five-point Likert scale items. It covered clear goals and structure, appropriate workload, quality of online learning material, proper assessment, and cognitive presence. The reliability of the survey was established by means of Cronbach's alpha which was 0.987.

## Result and discussion

According to the survey conducted on 253 nurses, the online learning module on medication knowledge, was proved to be effective. The module had well-defined objectives, a suitable workload, engaging materials, and informative quizzes. Additionally, it enhanced the cognitive presence of the nurses and helped them apply the acquired knowledge.

Survey findings had highlighted the impact of the acute medication online learning module on the following five categories of learning experience.

Learning experience survey	Strongly disagree and disagree		Neutral		Strongly agree and agree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
<b>Clear Goals and Structure</b>						
I was clear about the learning objectives of this module.	3	1.2%	11	4.3%	239	94.5%
I was able to figure out what to do next from the learning tasks presented to me.	3	1.2%	18	7.1%	232	91.7%
<b>Appropriate Workload</b>						
There was sufficient time to understand the online materials.	4	1.6%	18	7.1%	231	91.3%

I was able to figure out what to do next from the learning tasks presented to me.	3	1.2%	18	7.1%	232	91.7%
<b>Appropriate Workload</b>						
There was sufficient time to understand the online materials.	4	1.6%	18	7.1%	231	91.3%
There was sufficient time to complete the online learning.	5	2.0%	20	7.9%	228	90.1%
<b>Quality of Online Learning material</b>						
Online learning materials that are extremely good at explaining things that helped me to learn.	10	4.0%	24	9.5%	219	86.6%
Online learning materials that make topics interesting to me.	7	2.8%	31	12.3%	215	85.0%
There were sufficient online learning materials to help me complete my assignments.	6	2.4%	18	7.1%	229	90.5%
<b>Appropriate Assessment</b>						
The online quizzes help me to learn effectively.	5	2.0%	19	7.5%	229	90.5%
<b>Cognitive Presence</b>						
The online course activities that arouse my curiosity.	4	1.6%	33	13.0%	216	85.4%
The learning materials that motivate me to explore content related questions.	4	1.6%	22	8.7%	227	89.7%
The questions raised in online course activities through combining new information gathered from various resources.	5	2.0%	21	8.3%	227	89.7%
I was able to resolve questions I have about the content in this course through discussing with colleague.	4	1.6%	24	9.5%	225	88.9%
I was able to understand fundamental concepts in this course through reflecting on course content.	3	1.2%	17	6.7%	233	92.1%
I was able to apply the knowledge created in this course to my work.	3	1.2%	12	4.7%	238	94.1%

### Conclusion:

The study's results showed that the online learning on the medication knowledge for Primary Healthcare nurses had met nurses' learning needs and strengthened their medication knowledge.

The online learning module was used as a refresher to reinforce the medication indication, side effects and contraindications. It helped enhance nurses' knowledge and confidence levels, improve patient safety and increase job satisfaction for nurses.

### Recommendations:

Future research could explore pedagogical methodologies that translate theoretical knowledge into practical skills. This would ultimately enhance the critical thinking abilities of nurses.

## Transformative Leadership in Cancer Care – Leadership Academy Excellence Program

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<sup>1</sup>Victorian Comprehensive Cancer Centre (VCCC) Alliance, <sup>2</sup>Olivia Newton-John Cancer Research Institute, <sup>3</sup>University of Melbourne

### Introduction/Background

The VCCC Alliance is partnership of 10 leading research, academic and clinical institutions, working together to fundamentally reshape the way we tackle cancer.

As part of the VCCC Alliance Leading for Impact program, we have designed and developed a bespoke leadership program, named the Leadership Academy Excellence Program. This program aims to address the leadership needs of the cancer workforce and consumers. Strengthening collective leadership is central to achieving our mission: to position VCCC Alliance as a trailblazer in research-led, consumer-engaged cancer education, prevention, detection, treatment and care.

### Methods

In designing the Leadership Academy Excellence Program, we have partnered with University of Melbourne, a key partner in the VCCC Alliance and a world leader in education excellence. We consulted with key stakeholders of VCCC Alliance, i.e. clinicians, researchers and consumers in identifying their leadership needs, tailoring the content, design and ensuring the relevance of the program. The Excellence Program consists of orientation webinar, online masterclass, residential intensive and small group coaching. Each element was carefully selected to build trust (orientation webinar); knowledge and skills-building (masterclass, residential intensive); and consolidating knowledge, peer-learning, accountability (small group coaching).

The Excellence Program was launched in October 2023, with further runs in February and April 2024.

### Results/Evaluation

Participants are required to complete a pre and post-program evaluation, focusing on their awareness of the VCCC Alliance's focus on leadership, their willingness to participate in leadership development, their level of competence and confidence in leadership practice. The pre and post-program evaluations contain similar questions to enable us to assess the participants' starting point (pre-program) and measure the impact of the program (post-program). Success of this program is measured by an increase in participants' competence and confidence in their leadership practice following completion of the program.

### Discussion

The Leadership Academy Excellence Program may not address the specific challenges and dynamics of the participants' workplace, as participants' primary employment may not be with VCCC Alliance. Hence the Excellence Program aims to promote collaboration and partnership-building efforts, in addition to enabling participants to build and utilise their own leadership strengths.

### References

*Optional. A maximum of two references can be included in the abstract. These references are not part of the word count.*

## Near-peer teaching in general practice: more than one way to solve a problem

**Ryan C**<sup>1,2</sup>, Kelly M<sup>1,2</sup>, Green A<sup>1,2</sup>, Shirley B<sup>1,2</sup>, Chau A<sup>1,2</sup>, Melville R<sup>1,2</sup>, Jackson C<sup>1,2</sup>, Preston S<sup>2,1</sup>, Sturman N<sup>1,2</sup>

<sup>1</sup>The University of Queensland, <sup>2</sup>The Royal Australian College of General Practitioners

### Introduction/Background

Universities are embedding more General Practice experience in medical programs, with general practitioners (GPs) welcoming more students into their practices. Given both the need for greater teaching capacity within general practices, and the importance of student exposure to registrar teaching and training pathways, it is surprising that medical students report less contact with GP registrars than with registrars in many hospital-based specialties. We undertook a pilot study of GP-registrar teaching of medical students in general practice to explore barriers and enablers for, and benefits of, near-peer teaching.

### Methods

Year 2 medical students who received practice-based teaching from both GP registrars and more experienced GP teachers on their longitudinal general practice placement, GP-registrars, GP teachers, and GP supervisors were invited to participate. Perspectives and experience of participants were explored through survey and focus-group discussions.

### Results/Evaluation

7 student-registrar pairs participated in the pilot. Registrars had variable prior experience of medical student teaching from hospital contexts, and some missed their teaching roles. Provisional findings highlight several benefits of near-peer teaching and learning for both students and registrars (provided registrar cognitive load was manageable, and expectations were clearly communicated). Registrars themselves sought more near-peer relationships with new Fellows. Registrars were more assessment focused, committed to aligning student experience to learning outcomes, and consistent in accessing and following guidelines at point-of-care. Registrars had fewer regular patients, less time pressure on consultations, and lower patient loads with more new and acute presentations. Their clinical reasoning process differed from more experienced GPs and was more visible to students, and they were more likely to seek help. GPs were more efficient, and more likely to encourage students to lead consultations.

### Discussion

Our consent process presented recruitment challenges. Findings suggest that near-peer teaching and learning experiences are largely positive, and support embedding (but not mandating) near-peer teaching more widely in General Practice.

## Clinical Placement factors that influence the development of professional subjectivity in individuals who study physiotherapy.

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<sup>1</sup>*School of Education and Professional Studies, Griffith University*, <sup>2</sup>*Griffith Institute for Educational Research, Griffith University*, <sup>3</sup>*School of Health Sciences and Social Work*

### **Introduction**

Given the significant societal and personal investment involved, understanding individuals' motivations for studying physiotherapy, their effective preparation and retention is important. Central here is how they engage with and identify as physiotherapists: i.e., their subjectivity. Understanding how this subjectivity develops, necessitates elaborating how individuals engage in their study as this illuminates the complex of factors shaping that decision-making.

### **Aim:**

To identify the complex of factors influencing individuals' engagement in physiotherapy clinical placement study.

### **Methods**

Retrospective interviews with 9 physiotherapists and 15 final-year physiotherapy students subjected to narrative analysis on 127 clinical placements.

### **Results**

Informants (n=24) reported most clinical placements prepared them for the workforce (114/127) and identified factors that positively impacted their engagement and development (109/127). Factors included diverse patients and clinical approaches, opened to the scope of physiotherapy practice and the role of the physiotherapist, placement alignment with personal goals, and the authenticity of their placement experiences. Informants reported that clinical educators provided advice and support to at least a moderate extent.

### **Discussion**

Informants found that clinical placements that most closely resembled real working conditions assisted them most in their development as a physiotherapist while informants were aware that clinical placements still protected them from situations where they would find difficult. Informants stated a strong relationship with their clinical educator facilitated a more rewarding experience and relished the one-on-one experiences they did have with them. The inference is that clinical placements that provide authentic experiences where they are provided with real world situations where clinical educators played a role in facilitating their experience facilitated their professional subjectivity.

# Physiotherapy Clinical Educator Professional Development: An Objective Structured Teaching Encounter (OSTE) Field-trial

**Newstead C**<sup>1,2</sup>, Johnston C<sup>2</sup>, Wakely L<sup>3</sup>, Nisbet G<sup>1</sup>

<sup>1</sup>The University of Sydney, <sup>2</sup>The University of Newcastle, <sup>3</sup>The University of Newcastle, Department of Rural Health

## Introduction/Background

Continuing professional development (CPD) for physiotherapy clinical educators is commonly delivered as traditional theory-based workshops<sup>1</sup>. This mode of CPD generally lacks an experiential-learning component and may not be meeting physiotherapists' needs<sup>2</sup>. This project involved a field-trial of an Objective Structured Teaching Encounter (OSTE) as an alternate, experiential-based, mode of CPD.

## Methods

Participants in the OSTE field-trial were physiotherapists (n=5). The OSTE consisted of three simulation-based learning activities, each requiring participants to adopt the role of a clinical educator and interact with a simulated physiotherapy student (actor). Objectives of the OSTE were to provide an opportunity for participants to practice clinical education skills, including assessing/facilitating clinical reasoning and providing performance feedback. Data regarding participants' professional profile and reaction to the OSTE field-trial were collected via pre/post survey and analysed descriptively. Researchers recorded and analysed field notes from direct observation of the practical implementation.

## Results/Evaluation

Participants indicated that the OSTE was relevant, realistic, had clear objectives and was a useful adjunct to traditional modes of CPD. Suggestions were received for future development of the OSTE, including further revision of the simulation scenarios, incorporation of structured feedback processes, and more opportunities for practice. Researcher field notes indicated the OSTE was simple to deliver, required minimal resources, and authentically replicated clinical education scenarios involving physiotherapists and physiotherapy students.

## Discussion

The use of experiential-learning, in the form of an OSTE, may be a viable adjunct to other clinical education CPD for physiotherapists. However, structured processes for creating and revising the associated resources should be developed to optimise the impact of OSTE CPD for physiotherapists. Completion of this field-trial is a foundation for a larger scale implementation and program evaluation involving a broader range of physiotherapists.

## References

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## Development of “Know Me Later,” an adolescent education program for healthcare professionals.

O'Brien K<sup>1</sup>, Matthews E<sup>1</sup>, Tassoni D<sup>1</sup>, Bauer C, **Horwood K**

<sup>1</sup>*Royal Children's Hospital*

### **Introduction/Background**

A learning needs assessment conducted by allied health clinical educators at the Royal Children's Hospital (RCH) highlighted communication needs of adolescents as a significant gap in clinical education. “Know Me Later” was a pilot program designed to address this.

### **Methods**

Experienced adolescent health clinicians supported development and delivery of content. Program content was also informed by parents through consultation with the Family Advisory Council.

In conjunction with the Chronic Illness Peer Support team, a workshop was held with current and previous adolescent patients to inform content. Participants engaged in group discussion on topics such as attending clinical consultations alone and contributors to negative and positive interactions with health professionals.

### **Results/Evaluation**

The pilot program was run in two modules with 16 allied health professionals (AHPs). The first focused on normal adolescent development, the impact of chronic disease and psychosocial health delivered didactically over two hours by adolescent health consultants.

The second module was delivered in two parts, the first a communication workshop facilitated by an AHP, nurse and manager of the Wadja Aboriginal Family Place. This was discussion based, incorporating the perspectives of young people and parents.

The final part was a simulation focused on developing rapport and exploring barriers to therapy engagement with an actor as an adolescent. Surveys pre and post each module and focus groups after each module were used for evaluation.

### **Discussion**

This program is the first of its kind at RCH. An extensive design and evaluation process was undertaken to ensure this program could be repeated and delivered to all craft groups in a sustainable way. Going forward, feedback from this pilot will be applied to update and refine this program to optimise engagement and efficacy.

## “It’s not formalised learning”: The reality of learning genomics in the workplace in Victoria, Australia

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Genomic medicine is entering routine health care, informing clinical decision-making to help diagnose, treat, and prevent disease, with numerous countries now working to implement genomic medicine.<sup>1</sup> However, the lack of a genomic-competent health workforce is a major barrier. A previous stage of this doctoral study unearthed genomics workplace learning opportunities from doctors' everyday work contexts.<sup>2</sup> However, there is limited workplace learning research beyond formal clinical training programs and in emerging health-related areas of practice. This study aims to address this gap, exploring genomics workplace learning in authentic work contexts. We present the findings of the final stage, examining doctors' experiences and perspectives on learning genomics in the workplace.

A longitudinal phenomenological approach was used to explore doctors' lived experiences of learning genomics in the workplace. Doctors working in hospitals in Victoria, Australia with access to clinical genetics services were eligible to participate after completing a screening form. Ten participants completed pre- and post-semi-structured interviews and submitted monthly reflective narratives over a minimum of three months. We used reflexive thematic analysis to inductively identify codes and generate themes on participants' genomics workplace learning experiences.

Participants represented a range of medical specialties, career stages, workplaces, and genomics experience. Each reported unique genomics workplace learning experiences, shaped by the reality of their work. Whether participants perceived genomics as clinically relevant and applicable to current practice primarily influenced their experiences. Participants employed a range of strategies to learn genomics in the workplace, with many engaging a 'Genomics Friend'. This may have led to the predominant perception of genomics learning being "not formalised".

These findings provide insight into the impact of everyday work on doctors' genomics workplace experiences and perspectives. It considers how workplace learning contributes to preparing the health workforce for emerging areas of clinical practice, such as genomics.

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## Building university-community partnerships based on mutuality and reciprocity: Outcomes of a continuing professional development program

Green E<sup>1</sup>, de Klerk E<sup>1</sup>, Ryan E<sup>1</sup>, **Zuman L**<sup>1</sup>, Lander C<sup>1</sup>, French L<sup>1</sup>, Barry R<sup>1</sup>, Schubert J<sup>1</sup>, Ellis N<sup>1</sup>, Castelletto K<sup>1</sup>, Smith B<sup>1</sup>, Biggs C<sup>1</sup>

<sup>1</sup>Charles Sturt University

### Introduction/Background

The university sector has broadly moved to a focus on knowledge exchange where the concepts of mutuality and reciprocity focus on what the university gives community, as well as what it receives. One example of knowledge exchange that occurs in university-community relationships is the delivery of continuing professional development (CPD) to individuals who provide clinical supervision to health students. This presentation is focused on the experiences of a rural health education team delivering CPD and the mechanisms that have proved challenging or successful in building partnerships.

### Methods

CPD was provided to rural health professionals using online and face-to-face platforms. Topics were chosen after extensive consultation with the intended audience and considering the expertise of the groups of presenters. Evaluation data was collected after each session and can be used to demonstrate the outcomes of the sessions as well as provide information on what rural clinicians would like to see in future offerings.

### Evaluation

In 2023, CPD was delivered to 158 rural health professionals across two online webinars, and four face-to-face sessions. Feedback was received from 106 participants and the sessions received a 96% satisfaction score. In addition to providing a platform for knowledge exchange, these sessions also enabled networking between academics and clinicians, and connections between rural clinicians. Challenges faced were timing the sessions to fit with clinicians' busy schedules and choosing topics that were applicable to an interprofessional audience with varying levels of experience.

### Discussion

This presentation demonstrates how university-community partnerships can be extended by academics delivering CPD to health professionals who provide student supervision. Considering the constraints of current resourcing, we have demonstrated a way to effectively undertake this work which could be used by others.

## How Prepared Do Australian Osteopathy Students Feel to Manage Patients with Chronic Musculoskeletal Pain?

**Vaughan B**<sup>1,2,3</sup>, Fabien B<sup>2</sup>, Mirhashemi D<sup>2</sup>, Frederiksen D<sup>2</sup>, Orrock P<sup>2</sup>, Horstmanshof L<sup>2</sup>  
<sup>1</sup>University Of Melbourne, <sup>2</sup>Southern Cross University, <sup>3</sup>University of Technology Sydney

### Introduction/Background

Chronic musculoskeletal pain, particularly low back pain and arthritis, is one of the most chronic diseases in Australia with over 27% of the population affected. These conditions can have a significant impact on physical, social, and mental health, and also result in a burden on the health system and economy through lost workdays and healthcare costs. Given the multidimensional influences on pain, primary care health professionals need to have core bio-psychosocial skills when managing those who experience chronic musculoskeletal pain. It is important to ensure that future health professionals are prepared and confident to manage these patients.

### Methods

This qualitative interview study was underpinned by Bandura's theory of self-efficacy. The theory informed the development of the interview guide and analysis. Potential participants were students in the clinical years of three Australian osteopathy programs. Participants engaged in a one-hour audio recorded interview with one of the researchers. Transcripts were analysed using Bandura's theory of self-efficacy.

### Results/Evaluation

Participant responses were consistent with the concepts of mastery experiences, vicarious experiences, social persuasion, and emotional state that comprise self-efficacy theory. Mastery experiences were limited. However, participants valued clinical supervisor feedback and observation of supervisor interactions with patients. Similarly, vicarious experiences were limited with few participants observing osteopaths in practice managing chronic pain patients. Learnings from these observations typically related to communication within the consultation. Feedback from patients and supervisors, and patient outcomes, related to social persuasion. Emotional responses varied among the participants – both enjoying the experience and feeling frustrated.

### Discussion

Using self-efficacy theory, we have been able to develop an insight into the preparedness and confidence of Australian osteopathy students to manage chronic musculoskeletal pain patients. The outcomes highlight opportunities to improve the curriculum and workplace learning to enhance learner preparedness and confidence.

# Self-Reflection and Peer Assessments Effect on Pharmacy Students' Performance at Simulated Counselling Sessions

**Pace J**<sup>1</sup>, Bartlett A<sup>1</sup>, Arora A<sup>1</sup>, Penm J<sup>1,2</sup>

<sup>1</sup>*Sydney Pharmacy School, Faculty Of Medicine And Health, University Of Sydney,*

<sup>2</sup>*Department of Pharmacy, Prince of Wales Hospital*

## **Introduction/Background**

Verbal communication is a vital skill for pharmacists. Sound verbal communication and counselling skills are essential for good patient care and their importance is emphasised in a range of professional codes and guidelines. The aim of this study was to explore students' perception of the impact of self- and peer-assessment on the development of patient counselling skills through simulated patient counselling sessions.

## **Methods**

Focus groups explored student perceptions of how this course and way of learning has impacted their performance at counselling patients. Data were analysed using iterative inductive thematic analysis procedures and mapped to the self-determination theory (1).

## **Results/Evaluation**

Nine focus groups with 47 pharmacy students. We identified three main themes and ten associated subthemes. These were learning style (sub-themes gradual introduction to assessment, learning through self-reflection videos, authentic assessment, individual learning compared to group learning, and learning through observation of best practice), feedback (sub-themes inconsistent feedback, summative feedback, perception of self and relationship with peers informing peer assessment) and benefits in real life practice. These themes mapped well to self-determination theory and highlighted that additional focus may be required for benefits in real-life practice.

## **Discussion**

Students' perceptions of self-reflection and self- and peer-assessment centred on learning style, feedback, and benefits in real-life practice. Additional focus on benefits of this unit of study in real-life practice and work integrated learning on placements may further strengthen the impact of these learning activities.

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## Barriers and facilitators to implementing programmatic assessment in health professional programs – developing a recipe for success

**Lee M**<sup>1</sup>

<sup>1</sup>*University Of New South Wales*

### **Introduction**

Although there is a growing body of evidence supporting the use of programmatic assessment in competency-based medical and health professional education<sup>1</sup>, successful implementation remains a challenge<sup>2</sup>. International evidence shows diverse issues restricting successful implementation of programmatic assessment, such as: poor grasp of the principles among faculty, staff and students; assessment fatigue; increasing cohort sizes; logistic and resource constraints; poor educator engagement; or providing poor, inconsistent feedback to students. The aim is to identify barriers and facilitators to implementing programmatic assessment in the Australian and New Zealand contexts.

### **Methods**

A small group discussion will be used, following a brief presentation from the co-presenters' experience in the implementation of programmatic approach in entry-level courses. Own-identified enablers and barriers will be shared to facilitate the discussion .

### **Results**

Discuss and identify key steps, potential barriers and facilitators, towards developing a situated framework to effectively implement programmatic assessment based on the experiences of a multidisciplinary group of educators in health professional programs in Australia and New Zealand. The identification of local contextual factors (such as healthcare system structure, policies, and local idiosyncratic features) will facilitate reflective practice opportunities towards the implementation of programmatic assessment.

### **Discussion**

While the main assets of programmatic assessment have been well documented, the influence of local contexts such as university and government policies, and the influence of the healthcare systems remain to be explored. Learning from peers could allow educators to cross the bridge between international evidence in programmatic assessment compared to the practicality of implementation in our local conditions (e.g. accreditation requirements, professional standards, registration requirements, multiculturalism, and consumers' expectations, etc). Exploring the impact, utility, and outcomes of programmatic assessment within Australian and New Zealand institutions has the potential to shape and enhance its future implementation in the region.

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## The use of Progressive Client Narratives to develop clinical prescription and justification skills of undergraduate prosthetic students.

**Holden A<sup>1</sup>**

<sup>1</sup>*University Of The Sunshine Coast*

Students within the discipline of Prosthetics and Orthotics (P&O) must develop critical thinking skills of prescription and justification of P&O intervention. This higher order thinking skill relies on in-depth device knowledge and clinical experience, as such students can struggle to make the link between theory and real-world application. Case-Based Learning (CBL) is used as a safe structure for students to explore authentic client scenarios to enhance critical thinking, problem-solving skills, and clinical decision-making. Building on the traditional CBL approach, Progressive Client Narratives (PCN) introduce students to case-study 'clients' that they work with over a semester. The case-studies progress as more theory is introduced. This innovative approach allows students to apply new clinical knowledge to a client narrative they become more familiar with. This inquiry-based approach to learning provides the authentic experience of guiding a client from referral through to prescription and justification of a prosthetic intervention while fostering a client-centered, biopsychosocial model of prosthetic healthcare.

### **Methods**

PCN have been developed in the foundational prosthetic theory course at the University of the Sunshine Coast for several years, with formal feedback from citing benefits to their engagement with the learning material. Based on this, a mixed-methods pre- and post-course questionnaire is proposed to explore the research question: "what learning activities do undergraduate Prosthetic and Orthotic students find effective in developing clinical prescription and justification skills."

### **Results/Evaluation**

The data collected will be a combination of quantitative survey results and qualitative reporting from the participants as to what they found most beneficial to the development of their prescription and justification skills.

### **Discussion**

Little evidence is available to support CBL as an effective learning strategy in healthcare, despite wide usage. The data from this proposed study would add to evidence about the efficacy of PCN, and subsequently CBL, as a learning approach. The findings could inform pedagogic practices of higher order clinical thinking skills across the health education sector.

## Creating a device to view axial sections of a human brain in neuroanatomy lab

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<sup>1</sup>*University Of Hawai'i John A. Burns School Of Medicine*

### **Introduction/Background**

The purpose of this abstract is to demonstrate the utility of a novel device which allows the displaying of thin section of brain in a way that allows medical students to track pathways longitudinally from spinal cord to cortex.

### **Methods**

A unique device was created using 24 circular acrylic plates spaced vertically along a metal rod which acted as a rotational axis. A brain was then serially sectioned along the axial plane and displayed in such a manner that the sections were stacked one on top of the other in superior to inferior sequence. Horizontal rotation of the acrylic plates allowed a single slice of the brain to be viewed at a time and the subsequent slices to be viewed in the same context immediately thereafter. This device was used as a teaching aid to medical students during their neuroanatomy course.

### **Results/Evaluation**

Many students demonstrated a fascination with the device during its utilization as a teaching aid. When used to demonstrate tracking of neurological structures and pathways through the entirety of the brain slices, the students reported an appreciation for the ease of visualizing them in a more clear and more understandable manner.

### **Discussion**

Students often report confusion when first learning neuroanatomy in medical school. Utilization of gross anatomical specimens can often be used to aid understanding, but it is often limited to visualization of a single structure at the expense of the rest of the brain. Being able to highlight several sections of brain structures one after the other may aid medical student comprehension of neuroanatomy.

# Integrating Digital Platforms and Face-to-Face Sessions for Effective Pathology Teaching: A Novel Approach for 2nd-Year Medical Students

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<sup>1</sup>College Of Medicine And Public Health, Flinders University, <sup>2</sup>College Of Medicine And Public Health, Flinders University

## **Introduction:**

This poster presents an innovative histology and pathology teaching method implemented at College of Medicine and Public Health, Flinders University, Adelaide for 2nd-year MD students. The approach aimed to enhance the students' understanding of pathology by combining virtual and face-to-face interactions. Two distinct sessions were conducted to provide a comprehensive learning experience.

## **Methods:**

The first session, on Mondays conducted as a workshop through Microsoft Teams, focused on imparting fundamental histology and pathology knowledge of a body system. The students engaged in interactive learning through clinical cases presented via worksheets. Academics guided the students through the worksheets, fostering active participation and real-time discussions, either through live interaction or Microsoft Forms. This laid the groundwork for the subsequent face-to-face component.

The second session, held on Thursdays as a face-to-face drop-in session, provided an opportunity for students to delve deeper into the pathology content introduced on Monday. During this session, students correlated pathological findings with normal histology, examined digital slides, and explored pathology pots. The materials presented during the virtual workshop were revisited, reinforcing the integration of histology and pathology concepts. Importantly, students had the chance to seek clarification on doubts and further explore topics of interest from the academics present at site.

## **Discussion:**

This teaching strategy leverages the benefits of both digital and in-person interactions. The initial virtual session facilitated efficient content delivery, while the face-to-face component allowed for a more personalized and interactive exploration of the material. By dividing the teaching into two sessions, students had the unique advantage of initially acquiring knowledge and subsequently applying and correlating it in a practical context.

This poster submission highlights the successful implementation of a dual-session histology and pathology teaching method, offering a promising model for medical educators seeking effective and engaging ways to teach complex medical subjects. The approach aligns with the evolving landscape of medical education and addresses the diverse learning needs of preclinical medical students.

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## How do (and should) we teach pharmacy law? A systematic scoping review

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### **Introduction/Background**

Knowledge of the legal framework governing pharmacy practice is an essential part of both pre-registration pharmacy training and ongoing practice as a pharmacist. Despite its importance, there is great variation in both teaching and assessment of pharmacy law and little guidance on optimal approaches. The aim of this review is therefore to map how pharmacy law is currently taught and assessed and review any evidence on the effectiveness of these methodologies in order to inform best pedagogical practice.

### **Methods**

An electronic search of the global peer-reviewed literature was undertaken in accordance with the PRISMA guidelines for scoping reviews. Articles were screened by at least two authors and were included if they were published in English within the past 15 years and described a method to teach and/or assess pharmacy law in a preregistration pharmacy program.

### **Results/Evaluation**

Ten of 366 papers were included—four from USA, three from the United Kingdom, and one each from Australia, South Africa and Qatar. Teaching approaches used include online videos, reflective drawings, virtual pharmacy simulations, mock hearings from legal bodies such as state pharmacy boards and alternative approaches such as roleplaying and charades. Assessment methods used include written exams, presentations, online questionnaires and performance in simulated dispensing activities. Content was covered at a range of points within the degree programs and taught by both university faculty and practicing pharmacists. Student survey responses, changes in assessment scores and observations of increased student engagement were the primary methods used to demonstrate effectiveness, but there is little comparative data on the different approaches.

### **Discussion**

There is limited evidence on best pedagogical approaches to teaching and assessing pharmacy law and placement within the broader pharmacy degree program. Different degree programs and countries have used different approaches with varying degrees of success. Further evidence—including engagement with students, teachers and the pharmacy profession—is needed for optimal development and delivery of preregistration pharmacy law curricula.

## Co-designing Interprofessional Education: Empowering emerging health professionals and community members

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### Introduction/Background

Co-design in higher education helps develop productive relationships, increases appreciation and understanding of others' roles, and lifts productivity and engagement. These benefits are also learning outcomes for interprofessional education (IPE). By using co-design with IPE, we aimed to enhance the educational experiences of emerging health professionals (EHPs) via community members' (CMs) lived expertise. This study aimed to document the experiences and perspectives of EHPs and CMs participating in a co-design IPE initiative, "IPE@UniSC".

### Methods

IPE@UniSC was created to allow participants to learn with, from and about each other during two sequential, in-person IPE workshops. Between workshops, an asynchronous IPCP activity involved co-designing an IPE resource for future EHPs. This experiential learning was explored in focus groups recorded during Workshop 2. Additional data collection included pre- and post-workshop surveys, ascertaining participants' learning experience impact.

EHPs ( $n = 9$ ) were third- and fourth-year health students from psychology, dietetics, occupational therapy and nursing. The CMs ( $n = 8$ ) were aged 65+ years and had received care from three or more health professionals in the previous year.

### Results/Evaluation

The findings indicated that EHPs and CMs found the experience to be valuable, providing consolidation for EHPs of theoretical learning based on real-world experiences of CMs. CMs reported workshops aided them in feeling validated and understood for their healthcare system experiences. The act of co-designing IPE learning activities for students was reportedly an enjoyable way of reinforcing new material, with participant recommendations for future iterations.

### Discussion

By highlighting the perspectives of EHPs and CMs, this research presents a holistic view of IPE@UniSC and identifies potential impacts by exploring narratives and feedback. This study contributes to existing knowledge surrounding co-design methodologies in healthcare education. Future research may include the expansion of similar programs to aid EHP development and improve connections between tertiary training courses and communities.

# Interprofessional Collaboration in Medical Education: Integrating Pharmacist-Led Teaching to Enhance Prescribing Skills

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<sup>1</sup>*Eastern Health*, <sup>2</sup>*Monash University*

## Introduction/Background

Junior doctors undertake a significant amount of prescribing in hospital settings and good prescribing practices are essential to reduce the risk of medication errors and patient harm [1,2]. With an increased focus on prescribing in the local medical student programs, an opportunity emerged to incorporate pharmacist-led teaching for third-year and final-year medical students, providing an interprofessional perspective on safe prescribing and medication decision-making.

## Methods

In 2023, a pilot program was developed at the Eastern Health Clinical School, incorporating pharmacist-led teaching workshops into the pre-existing medical school curriculum. The program comprised of:

- (i) A 'medication reconciliation and prescribing workshop' for final-year students.
- (ii) A series of interactive 1-hour workshops for third-year students focusing on common, high-risk medications on the wards, such as antibiotics, insulins, narcotics and heparins/anticoagulants. These workshops, delivered virtually, featured a pharmacist as the primary facilitator, with some sessions co-facilitated by a clinician. Students were asked to complete a post-workshop evaluation survey.

Content was predominantly case-based and included practice points on how to apply knowledge in clinical care.

## Results/Evaluation

Preliminary feedback on the pilot program was positive, prompting program expansion in 2024. Evaluation of teaching activities will occur in 2024, where students will be asked to complete a feedback survey. Students will indicate using a Likert scale how helpful the sessions are in understanding the role of the hospital pharmacist, improving knowledge of commonly used medications, improving prescribing skills and improving awareness of common prescribing errors. Additional positive and constructive feedback will be requested.

## Discussion

The pharmacist-led workshops were well-received by medical students in the pilot year. In 2024, the pharmacist-led teaching will continue, with the third-year workshops to be delivered as a webinar for the entire Monash University Year 3 cohort. Additionally, existing hospital prescribing workshops for final-year students will also include a pharmacist-led prescribing activity.

## References

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[2] Mokrzecki S, Pain T, Mallett A, Perks S. Pharmacist-led education for final year medical students: a pilot study. *Front. Med.* 2021; 8:732054. doi: 10.3389/fmed.2021.732054

## Lived, learned and practice expertise: Collaborating on authentic assessment for an addiction and recovery unit.

**Johnston K**<sup>1</sup>

<sup>1</sup>*Monash University*

### **Introduction/Background**

If what we are aiming for in health profession student assessment is authenticity - whose authenticity is it? And can advocacy sit alongside this? This work explored these questions in the context of developing a six-week asynchronous online unit on addiction and recovery.

### **Methods**

To inform authentic assessments, a partnership was developed with an addiction psychologist and peer worker who equally contributed expertise to co-design three assessment tasks. The tasks involved students connecting with a “main character” animation of the peer workers’ journey through their life, addiction and recovery. The narrative was developed through collaboration across a three-month period to shape a story which allowed students to meet unit learning outcomes, represented a holistic picture of an individual’s lived experience, and modelled interprofessional education and practice. In assessment one students meet the individual and their story and consider how the person’s experiences may have been impacted by discourses, policies and perspectives. Assessment two further explores a point in the journey - a turning point identified by the individual – and features an animated interaction between the individual and their employer. Students then take the role of the employer and complete a written task about the interaction, their decision making when preparing for the interaction, and the possible next steps. Following this, students are presented with an “expert response” from the psychologist and from the person with lived experience. Using this information students build on their learning to develop a script of what they would say to the individual featured in the narration, integrating their learning into real-world practice.

### **Results/Evaluation**

Student experience of the unit is currently being evaluated to ascertain whether this innovation met the aim of fostering a deeper understanding of the complexities of a person’s experience of addiction and recovery.

### **Discussion**

The project highlighted the importance of centring the individual as the expert within interprofessional collaboration and the challenges of doing so in an academic context.

# Empowering Interprofessional Practice: Student Perspectives from an Innovative, Student-led Interprofessional Approach in a Disadvantaged Community

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## Introduction

Interprofessional practice results in better client outcomes, yet most professional peak bodies recognise that students still need to graduate as interprofessional, work-ready health professionals. In one of the most disadvantaged areas in South Australia, an intermediate care, community-based health service partnered with Flinders University to develop and deliver a student-led interprofessional chronic conditions assessment clinic. Unique to this initiative, involving Dietetic, Occupational Therapy, Exercise Physiology and Physiotherapy, mostly final-year students, is a behaviour change approach using a self-management and supervision from a generalist Allied Health professional. This study aimed to investigate how this unique, practice-based initiative impacted students' understanding, perspective and experience of interprofessional practice.

## Methods

A mixed method, cross-sectional study evaluated the impact of the weekly, two-day, practice-based, interprofessional student-led service implemented over 18 months (July 2022-November 2023), using two validated measures of interprofessional practice (Interprofessional Socialization and Valuing Scale-21 (ISVS-21), SPICE-R2 Instrument), pre-and-post, and individual semi-structured interviews at placement completion. Using grounded theory, interviews were thematically analysed using a six-step process (Braun & Clarke, 2006).

## Results

Results from 22 students (total placement weeks=470, ranging between 5-8 weeks) indicate a significant improvement in mean ISVS-21 scores from baseline ( $94.4M \pm 28.8SD$ ) to post-intervention ( $129.4M \pm 11.7SD$ ) and SPICE scores ( $39.1M \pm 4.9SD$  to  $45.3M \pm 2.6SD$ ), reflecting enhanced interprofessional perspectives among students. Thematic analysis revealed four predominant themes: increased interprofessional understanding and confidence, challenging held assumptions and worldviews, and enablers and constraints for developing interprofessional competencies.

## Discussion

The initiative notably enhanced students' understanding and competencies in interprofessional practice during placements and is one of few studies that includes the student voice. Key findings underscored the necessity of implementing structural support mechanisms for sustained impact. Establishing a common assessment framework alongside discipline-specific competencies emerges as crucial for fostering enduring collaboration and ensuring the initiative's sustainability in facilitating comprehensive interprofessional development among students.

## Reference

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# Healthcare Students Working Together: an Innovative Interprofessional High-fidelity Simulation

**Frotjold A**, Bloomfield J

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## Introduction/Background

Interprofessional simulation promotes teamwork, role understanding and the development of technical and non-technical clinical skills (Livne, 2019). Sound pedagogical practice requires evaluation of teaching activities. Understanding students' perceptions of the educational value of the simulated activity is also imperative.

## Aims

To explore:

1. changes in student attitudes towards interprofessional collaboration after participating in a high fidelity simulated patient scenario.
2. Students' perceptions of the interprofessional simulation in the context of their education and preparedness for practice

## Methods

Final year students from five disciplines participated in an innovative high-fidelity interprofessional simulation. Students were required to work collaboratively to demonstrate safe patient management for a 15-year-old trauma patient. Pre and post questionnaires were administered and focus groups explored issues identified in the survey responses. Descriptive and inferential statistics and thematic analysis were used for data analysis.

## Results/Evaluation

Students demonstrated a positive change in the beliefs, behaviours and attitudes that underpin interprofessional socialisation ( $p < 0.00$ ).

Four main themes emerged from qualitative analysis:

1. Stepping out of silos
2. Who fits where?
3. Negotiating decisions
4. Reflecting on the bigger picture

## Discussion

High-fidelity interprofessional simulations provide the opportunity for students to gain a deeper understanding of their and others' roles in an authentic context. In this activity, students actively demonstrated teamwork, collaboration and clinical problem-solving. The opportunity to reflect during debriefing was perceived positively by students as a way to enhance their learning and transition to practice.

## References

Livne, N. (2019) High-fidelity simulations offer a paradigm to develop personal and interprofessional competencies of health students: A review article. *Internet Journal of Allied Health Sciences & Practice*. 17(2), 1-20.

## Shaping the Future of Parkinson's Disease Care: A Study on Interdisciplinary and Educational Synergy.

**Sharrad S**<sup>1,2</sup>, Harmon J<sup>1,2</sup>, Uy J<sup>1</sup>, Rowett PSM<sup>1</sup>, Butler M<sup>1</sup>, Kumar S<sup>1</sup>

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### Introduction

Parkinson's disease (PD), the second most common neurological disorder, necessitates collaborative management approaches involving interdisciplinary teams. This presentation explores the perceptions of academic healthcare professionals (AHP) and those directly impacted by PD on integrating healthcare students into interdisciplinary PD clinics.

### Background

Nationally, there are challenges in providing comprehensive and timely PD care in regional areas, due to the shortage of experienced health professionals capable of forming effective interdisciplinary teams. This study describes an innovative interdisciplinary clinic piloted in a regional campus of a South Australian university. The clinic aimed to enhance integrated care for people with Parkinson's (PwP) and evaluate the potential integration of nursing, physiotherapy, occupational therapy, and pharmacy undergraduate and postgraduate students in future interdisciplinary clinics.

### Methods

Four AHP were purposively sampled to consult simultaneously in an interdisciplinary clinic. Eight PwP and their caregivers attended the clinic. Following the clinic, PwP and caregivers (n=8) and AHP (n= 4) were interviewed. A qualitative descriptive method was used, and data were analysed using Elo & Kyngäs' inductive content analysis approach. Ethical Approval (# 204788) was awarded.

### Results

The analysis identified three themes; the perceived valued of interdisciplinary care among AHP and PwP and their caregivers; the demand for accessible, skilled PD clinicians in regional areas; and the potential benefits of student involvement in developing specialised PD management skills for a future regional healthcare workforce.

### Discussion

The provision of interdisciplinary PD care to was found to be valuable by AHP and PwP and caregivers. The findings suggest that introducing healthcare students in regional healthcare systems is potentially feasible and beneficial. It is proposed that this clinic could promote access to timely PD care and address persistent workforce challenges in regional areas. Students may be a viable and acceptable workforce to achieve interdisciplinary care for other complex conditions in regional areas.

## Improved values- based goals of care documentation through interprofessional communication education

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<sup>1</sup>Barwon Health, <sup>2</sup>Deakin University

### Introduction/Background

This study explores the impact of interprofessional education (IPE) for communication skills on goals of care documentation in an acute setting.

Shared decision making for goals of care decisions is a process that is influenced by informal and formal communication interactions with all health care professionals. Medical discussion for goals of care is a formal process. However, informal conversations between patients, their significant others and other health care workers has been shown to be influential in shared decision making for advance care planning, goals of care and end of life decision making. Barriers to effective shared decision-making include clinician reluctance to initiate conversations and a perceived lack of communication skills due to limited education.

Objectives: Deliver interprofessional education for communication skills specific to the goals of care conversation and documentation

### Methods

A multiphase mixed methods design was employed to investigate the research objectives. This included comparing data from audited goals of care documentation on an acute ward at Barwon Health before and after the communication education.

### Results/Evaluation

Engaging an interprofessional group in communication skills education using the principles of IPE improved documentation of values-based goals of care for patients with life-limiting illness in acute care. While initial education with ICU registrars was associated with significant improvement in goals of care documentation, subsequent inclusion of senior registered nurses and allied health professionals with the application of IPE showed a further increase in the incidence and quality of completed goals of care documentation

### Discussion

Interprofessional education, characterised by two or more professions learning with, from, and about each other for communication skills, correlated significantly with improvement in documentation of values-based goals of care for patients with life limiting illness in acute care. Further qualitative analysis is required to explore and identify the factors contributing to this relationship.

### References

Burm S, Boese K, Faden L (2019) Recognising the importance of informal communication events in improving collaborative care. **BMJ Quality & Safety**, 28:4, 289-295.

Fortin, G and Dumont, S (2021) Goals of Care Conversations at the End-of-Life: Perceived Impact of an Interprofessional Training Session on Professional Practices, **Journal of Social Work in End-of-Life & Palliative Care**, 17:4, 296-316

## Tackling obesity through interprofessional learning in a postgraduate setting

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<sup>1</sup>*Postgraduate Coursework in Medicine, Sydney Medical School, Faculty of Medicine and Health, University of Sydney*, <sup>2</sup>*Department of Endocrinology, Royal Prince Alfred Hospital*

### **Background:**

The increasing prevalence of obesity is a major health concern. Education of future stakeholders is an essential step to addressing this problem, which requires collaboration amongst clinician and non-clinician experts to develop innovative, effective approaches, from the individual level through to population-based interventions. An online Master's-level Unit of Study (UoS) in obesity care has been taught since 2016. Following a program-level course review, we planned to review the unit, reconsider the audience, and identify and address areas needing improvement.

### **Methods:**

We performed a multifaceted review of the UoS. We met with academic and professional staff involved in the UoS to review the curriculum, learning material, education methods, and assessment tasks. We identified potential opportunities to improve the UoS.

### **Results:**

The review of this UoS identified potential opportunities for improvement. From Semester 2 2021, the UoS was opened to students from non-clinical disciplines. The course content was adapted to ensure that both clinical and non-clinical students could learn together, ensuring that all students recognise the importance of effective weight management through a combined approach at the individual and population level. To enhance engagement, tools such as interactive webinars, Padlet, and Mentimeter were integrated into the teaching. Assessments were streamlined to improve constructive alignment with learning outcomes. Finally, initiatives that embraced student diversity and improved inclusivity were undertaken. We intend to analyse the efficacy of these changes by interrogating student data, including student evaluation surveys.

### **Discussion:**

The UoS has been redeveloped to improve teaching of person-centred and population-based approaches in obesity care to a cohort of highly diverse students. Collaboration between clinicians, researchers and public health leaders is required to develop effective solutions for obesity. This new approach to interprofessional learning in this UoS is an innovative step towards promoting collaboration through education.

## The Introductory Interprofessional Education for Interprofessional Collaborative Practice (IPE-4-IPCP) online module: Creating a foundation for health professions staff, students and faculty.

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### Introduction/Background

Effective interprofessional education (IPE) provides the foundation for health professions students to engage in meaningful, purposeful interprofessional collaborative practice (IPCP). Despite the importance of IPE, faculty who are responsible for developing and delivering IPE often have received limited training (Hayward et al., 2021) and IPE is not strategically embedded across all health discipline training programs. In order to facilitate, create and engage in effective IPE, health faculty, staff, and students need a shared, mutual understanding of IPE, interprofessional thinking and behaviours. This presentation will report on the Introductory IPE-4-IPCP online module, which aims to provide a shared understanding of IPE and IPCP for healthcare faculty, staff and students.

### Methods

In phase one of the multi-methods study, health faculty and staff provided feedback regarding the application of the module in educational and clinical training contexts. Phase two aimed to assess the impact on learners' self-reported confidence in their knowledge of IPE and IPCP, attitudes towards participating in IPE and willingness to engage in interprofessional practice.

### Results/Evaluation

Phase one focus group data provided feedback regarding the IPE-4-IPCP module content, implementation, learner experience and potential benefits for patients/clients. The findings from phase two indicated pre- and post-module changes for staff ( $n=12$ ) and students ( $n=68$ ) however, students reported significant increases in confidence and attitudes towards IPE and willingness to engage in IPCP measured by the Interprofessional Socialisation Valuing scale ( $Z = -5.026$ ,  $p < .001$ ) (King, Orchard, Khalili & Avery, 2016).

### Discussion

Developing IPE resources for a broad range of health professionals, from pre-licensure through to continuing professional learning, is challenging. Online learning may provide an option for supporting a diverse range of learners to create a shared understanding of IPE and create the foundation for health professionals across the continuum of learning to engage in interprofessional collaborative practice.

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doi:10.1097/CEH.0000000000000082

## Playing the long game: extended job seeking for allied health graduates in Australia and New Zealand

**Blair M**<sup>1</sup>, Palermo C<sup>1</sup>, Mitchell L<sup>2</sup>, Gibson S<sup>1</sup>

<sup>1</sup>Monash University, <sup>2</sup>Griffith University

**Introduction:** The prevailing narrative in dietetic education programs in Australia and New Zealand (ANZ) is that graduate employment is challenging to obtain. However, employment outcomes are lacking and the accuracy of this narrative has not been established. The aim of this study was to extend on previously published employment outcomes from four- to six-month post degree and explore employment outcomes at 12-months post degree for dietetic graduates in ANZ.

**Methods:** An online survey was created and distributed via Qualtrics to dietetic graduates from accredited university degrees in ANZ, who had completed their degree in 2020, at 12-months post degree completion. Distribution occurred via email through university educators, via respondents from the previous four- to six-month post-degree survey who had opted in to receive future invitations, as well as through social media and industry-specific websites and e-newsletters. Analysis was conducted using SPSS statistical management software.

**Results:** Response rate to the 12-month survey was 31% (n=193 from 631 graduates) and the retention rate was 66% from the previous four- to six-month survey (n=193 from 294 previous respondents). Eighty-six percent (n=165) of graduates were employed in jobs that required their degree (up from 60% at four- to six-month time point), 10% (n=20) were employed in non-dietetic related jobs and 4% (n=8) had no current employment. Thirty-one percent (n=60) were employed in private practice, while 28% (n=54) were employed in a hospital position.

**Discussion:** There are high levels of employment for ANZ dietetic graduates 12-months post-degree. This information may be beneficial for students and graduates to prepare them for a potentially extended period of job seeking with the knowledge that persistence is likely to result in employment. Strategies that enhance psychological resilience and uncertainty tolerance are also likely to be of benefit to dietetic graduates.

### References:

Blair M, Palermo C, Gibson S, Mitchell L. The Australian and New Zealand dietetics graduate outcomes survey: A cross-sectional study. *Nutrition & Dietetics*. 2022; 1-3.

<https://doi:10.1111/1747-0080.12739>

## Introductory Donation Awareness Training - a needs analysis for health professionals involved in organ, eye and tissue donation.

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<sup>1</sup>*Australian Organ And Tissue Authority*

### **Introduction**

The Australian Organ and Tissue Authority (OTA) leads the national program to improve organ and tissue donation. Since the introduction of the national program in 2009, the OTA has offered specialised professional training, information and resources for healthcare workers involved in donation and transplantation. The aim of this study was to understand the need for, barriers to attendance and suggestions to improve attendance at the “Introductory Donation Awareness Training” (IDAT) workshop that provides introductory training and education to a range of health professionals involved in organ, eye and tissue donation.

### **Methods**

Hospital based staff were surveyed to ascertain their awareness of the workshop and any barriers to attending and suggestions to improve attendance at an “IDAT” workshop.

### **Results**

381 hospital-based staff from a range of jurisdictions completed the survey in March and April 2023. 53% of participants had heard of the workshop, with 66% not having attended a workshop previously. 77% of participants said they would like to know more about organ donation and transplantation as it related to their role. Half of the participants stated there were barriers to attending. 54% of participants would prefer a blended approach to this learning.

### **Discussion**

The results of this survey has provided valuable information and led to a series of proposed improvements for the workshop. Firstly, to provide a blended learning approach including online learning and resources and a shorter time for face-to-face learning. Secondly, to increase awareness and share workshop information via digital means. Thirdly, to provide mini-courses targeted at health services, via an online format to increase the amount of workshops able to be delivered.

## Improving feedback literacy in a primary care rotation

**Tran M**<sup>1</sup>, Smith O<sup>1</sup>, Rhee J<sup>1</sup>

<sup>1</sup>*University Of New South Wales*

### **Introduction/Background**

Primary care education is a unique clinical experience for medical students. It is community-based and provides an opportunity for students to learn consultation skills with multiple sources of workplace-based feedback. In primary care education, there is the opportunity for a combination of constructivist approaches with scaffolding provided by observation of GP supervisors and health care staff, and behaviourist approaches with discussion and reflection guiding students' development of clinical reasoning and management skills (1). Meaningful and demonstrable utilisation of this feedback by students remains an educational challenge. In a primary care rotation at UNSW, we showcase achievable changes to educational tasks in an established curriculum, which aim to improve student feedback literacy and create a feedback loop which improves on previous provision of unidirectional, terminal feedback.

### **Methods**

We sought to provide multiple instances of feedback, and opportunities for students to reflect on, and action, this feedback. Existing assessments in clinical reasoning and consultation skills were modified with oral presentations and provision of actional feedback, requiring reflection, to create a feedback loop.

### **Results/Evaluation**

Feedback was introduced to a series of tasks, including written assessments, mini clinical evaluation exercises, written case logs and OSCE-type assessment with roleplaying actors (simulated patient). Changes included changing a written task on teamwork processes to an oral presentation with follow up reflection, written reflection and discussion about learning and changes from mini-clinical evaluation exercises, having students teach about cases and learning points of interest to each other and allowing students to demonstrate improvement in consultation skills at their final summative examination by introducing a formative component for reflection.

### **Discussion**

The changes have been well-received, with student and educator engagement being positive. Students have demonstrated critical reflection on feedback, and development in consultation and clinical reasoning skills. Feedback from medical educators have indicated that there is higher workload involved, but also increasing requests from students for their own insights into community-based patient care processes, clinical cases, and consultation skills. This underlines greater student acceptance of constructive criticism with a more trusting teaching relationship and the strengthening of an educational, primary-care focused community of practice.

### **References**

- (1) Carless D, Boud D. The development of student feedback literacy: enabling uptake of feedback. *Assessment & Evaluation in Higher Education*. 2018;43(8):1315-25.

## Clinical Portfolios as Pedagogic Stories: Undergraduate nursing students' experiences of storytelling practices to connect theory to practice

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<sup>1</sup>*University Of Auckland*

### **Introduction/ Background:**

Storytelling is a common pedagogic tool used in nursing education to bridge the theory-to-practice gap. Storytelling practices are discussed in the literature, but few studies explore how students use stories to learn. This study explores how undergraduate nursing students draw on and construct their own stories as they move from the classroom to clinical placements. It does so by reconceptualising clinical portfolios – required by the New Zealand Nursing Council to evidence safety - as *pedagogic stories* where the student becomes a key protagonist.

### **Methods:**

In this qualitative study, we employed a two-staged approach to data collection. Undergraduate year two and three nursing student clinical portfolios (n=10) were analysed, and emergent themes were identified. The researchers then held a focus group interview (n=6) to explore the emergent themes identified during the analysis of student portfolios.

### **Results:**

Emergent themes include: Stories as tools for disciplinary and professional socialisation, students select and discard stories based on perceived usefulness (i.e. Is the storyteller clinically current? Is this relevant to my current scope of practice?) and clinical portfolios as an under-utilised educational tool.

### **Discussion:**

Reconceptualising clinical portfolios as pedagogic stories may help to broaden our thinking about how they could be used to connect theory to practice more effectively. Students may benefit from revisiting past portfolio entries because it allows them to develop their own “meta-story” about their developing professional practice, activating reflective capabilities and a holistic view of professional practice where the clinical portfolio is more than an assessment to demonstrate competence. The student perspective also highlights the need for educators to explain why the stories they select are relevant and current to their development of professional practice.

## Fostering autonomy: blending clinical skills videos with practice for independent and accessible health education

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<sup>1</sup>*University of New South Wales*

### Introduction

A blended learning approach that integrates online videos can be effective for health professions students to acquire clinical skills<sup>1,2</sup>. In a university setting, access to practising clinical skills on patients is limited. Clinical skills videos combined with peer practice offer low-risk opportunities for students to achieve skill proficiency before clinical placements. We aim to explore a blended learning approach to cardiorespiratory physiotherapy skill development to support students with different styles of learning whilst improving flexibility and accessibility of information delivery<sup>1,2</sup>.

### Methods

Two cardiorespiratory physiotherapy courses are being developed for our undergraduate program. A blended learning approach has been implemented in the curriculum with cardiorespiratory clinical skills videos complementing remote and face-to-face learning. Videos will be delivered weekly alongside skill competency checklists before peer practice in workshops. Videos will be accessible to students for ongoing consolidation of their learning before clinical assessments, and during clinical placements. These videos will also ensure standardization of clinical skills instruction across different tutors to maintain consistency and quality in student experience.

### Evaluation

A survey of student experience, educator feedback and video engagement via the learner management system will be used to examine the attitudes to and utility of the blended teaching approach. This approach may be expanded to other courses and may benefit programs with similar clinical skills such as medicine and exercise physiology.

### Discussion

Clinical skills competency is essential for the provision of safe patient care. Providing opportunities for students to practice clinical skills is challenging due to a lack of access to real patients, risks, and costs. Blended learning incorporating clinical skills videos may link students' theory to practice via opportunities for repeated practice<sup>2</sup>. The accessibility and flexibility of these resources promote autonomy of learning.

### References

1. Kelly M, Lyng C, McGrath M, Cannon G. A multi-method study to determine the effectiveness of, and student attitudes to, online instructional videos for teaching clinical nursing skills. *Nurse education today*. 2009;29(3):292-300.
2. Coyne E, Rands H, Frommolt V, Kain V, Plugge M, Mitchell M. Investigation of blended learning video resources to teach health students clinical skills: An integrative review. *Nurse education today*. 2018;63:101-7.

## Evaluation of the number of insertions needed to achieve competency in Intrauterine Device (IUD) contraceptive training.

**Brown L**<sup>1</sup>, McNamee K<sup>1</sup>

<sup>1</sup>*Sexual Health Victoria*

Sexual Health Victoria (SHV) offers training and assessment to primary care health professionals in the clinical procedure for inserting intrauterine contraceptive devices (IUDs). The competency-based assessment involves observing 12 insertions in a clinic by an experienced clinician. A checklist is used to score the insertions, based on national criteria for safe insertion. Qualitative feedback is provided after each insertion. All observers use the same checklist and receive training before becoming observers. The assessment process is costly for both SHV and health professionals due to the need for multiple clinics, observers, and patients, as well as the cost of the assessment and lost income for the professional while attending.

To decrease costs while maintaining the validity of the assessment, there has been a discussion about reducing the number of insertions required for competency. An audit was conducted by the author of clinical training logs from January 2022 to January 2024 to assess the number of insertions required for a trainee to be considered competent against assessment criteria, whether the trainee was certified competent, and if not, why. The total number of insertions completed by the trainee was also recorded.

This presentation will discuss the findings from the audit, including the assessment of health professional competency to insert IUDs, the reasons for trainees not being certified competent, and medical educator insights behind the process. This information will be helpful for Sexual and Reproductive Health clinical education providers designing contraceptive training as well as primary care and gynaecology procedural skills training.

## Lessons from the implementation of revised medical school standards

**Evans C<sup>1</sup>**

<sup>1</sup>*Australian Medical Council*

### **Intro/ background**

The 2023 AMC Standards for Assessment and Accreditation of Primary Medical Programs (medical school standards) came into effect on 1 January 2024. The medical school standards review is now in an implementation phase. As part of this, the AMC has published a Guidance Matrix and will be hosting an Implementing Workshop to assist medical schools. The AMC is preparing to share lessons and areas of shared challenge and opportunity that have been revealed through these implementation activities.

### **Guidance Matrix**

The AMC Guidance Matrix aims to share AMC accrediting expectations and current practice related to the standards with medical schools, AMC assessment teams and reviewers, and other key stakeholders. The guidance matrix is broken down by sub standards and has 4 columns:

1. Explanation – elaborating on the standard.
2. Evidence – of potential documents or data AMC seeks to obtain to make an accreditation decision.
3. Examples – of practice that are on their way to meeting the standard/ have met the standard.
4. Resources – external documents relevant to the standard.

The Guidance Matrix is hosted on the AMC website and is a living document that will be regularly updated.

### **Implementation workshop**

On 20 March 2024, the AMC is hosting a Standards Review Implementation Workshop for medical schools to provide guidance on accreditation requirements, particularly for self-assessing against the revised standards. The workshop will include panels with panelists representing a variety of medical schools and other stakeholder groups to frame reflective thinking, with activities that are designed to build understanding of AMC accreditation expectations to follow. The workshop will focus on cultural safety, community engagement and student wellbeing and inclusion among other things.

### **Results/Evaluation and discussion**

This poster will focus on the lessons AMC learned in undertaking the Implementation Workshop and drafting the Guidance Matrix. It will also reflect on how AMC intends to support medical schools as a result of these findings and key shared challenges and opportunities in implementing the revised standards

## Planetary health and health professions education

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<sup>1</sup>University Of Sydney

### Introduction/Background

Planetary health may present a solution to the triple planetary crisis the world currently faces. The application of planetary health principles may help mitigate the devastating consequences of climate change, loss of biodiversity and pollution due to its primary focus on human health and interdependency of eco-systems. There is an urgent call for healthcare professionals to take an active role to mitigate the unprecedented challenges humanity faces at present. However, the integration of planetary health in health professions education and adaptation of sustainability practices in healthcare have been rather slow. This workshop provides an understanding of the current landscape of climate change, loss of biodiversity and pollution, discusses the concepts of planetary health, eco-anxiety and the integration of planetary health in healthcare and health professions education and presents an opportunity for participants to reflect on their viewpoints about planetary health, sustainability and educational practices.

### Methods

Q methodology that uses qualitative and quantitative analysis to comprehend human subjectivity, attitudes and behaviours[1] will be adopted in the form of a workshop to explore the different clusters of viewpoints of health professions educators from diverse geographical and demographic backgrounds on planetary health and sustainability. Fifty value/belief statements around planetary health, sustainability, and educational constructs around these were collected from multiple sources and refined following a pilot session. Q sorts will be analyzed using R software and qualitative data from the focus group discussion will be managed in NVivo.

### Results/Evaluation

A brief online questionnaire prior to the workshop will be used to collect demographic and occupational details and assess the level of knowledge on planetary health and sustainability. The participants will be requested to share a photographic image of their completed Q grid and participate in a focus group discussion which will be recorded. This workshop was successfully conducted as a workshop at the Asia Pacific Medical Education Conference (APMEC) 2024 with positive feedback from all participants.

### References

1. Ahn, B.J.I.I.I.I., *A Study of Gender Identity among Sports Participants*. 2017. **20**(5A): p. 3211-3218.

Developing and implementing an integrated curriculum to support dental students to work in partnership with Aboriginal and Torres Strait Islander Peoples to facilitate culturally safe dental care.

**Coleman D<sup>1</sup>, Parker E<sup>1</sup>**

<sup>1</sup>*University of Adelaide*

### **Introduction**

It is essential that dental students are able to develop their capabilities to work in partnership with Aboriginal and Torres Strait Islander Peoples to facilitate culturally safe dental care. We describe our approach to designing, implementing and continually improving a horizontally and vertically integrated curriculum for Bachelor of Dental Surgery students. The curriculum is underpinned by the understanding that the assessment of cultural safety sits with the patient and not the provider. Fundamental to the curriculum design and implementation has been responding to student feedback and requests for further support on understanding the “how to” in clinical practice.

### **Methods**

The Indigenous Health Curriculum development and implementation occurred over a 10-year period, imbuing Indigenous pedagogical principles throughout the cyclical process of creation, delivery, assessment and evaluation. Delivered via a range of learning and assessment modalities, the curriculum supports integration and application of understanding to clinical dental practice.

### **Results/Evaluation**

The curriculum integration improved student engagement and learning outcomes and supported students to connect with and value their developing understanding and knowledge. Horizontal and vertical integration was achieved through weaving learning units throughout the five-year degree. Each unit was positioned where key concepts would relate to and build upon other learning, revisiting and developing understanding relevant to student’s level of clinical experience.

After the conclusion of all learning activities and assessment, students indicated improved confidence and offered insightful reflections on their experiences working with patients. Student comments suggested a willingness to continue reflecting and learning, qualities core to cultural safety.

### **Discussion**

Centring of Aboriginal perspectives and narratives within curriculum development and delivery underpinned the success of curriculum development. The importance of continued reflection and learning by non-Aboriginal staff was fundamental to the principle of cultural safety not being a destination, but a journey, honouring relationships and learning built along the way.

## Developing Australia's First National Dementia Education and Training Standards Framework

**Burton J**<sup>1</sup>

<sup>1</sup>*Dementia Training Australia*

### **Background**

The prevalence of dementia continues to grow rapidly across Australia with dementia care now being seen as mainstream aged and health care practice. The quality of care for people living with dementia has been drawn into question, and the findings of the Royal Commission into Aged Care Quality and Safety highlighted the lack of person-centred care, the lack of dementia skills and knowledge and in the aged care workforce and the need for more consistent and higher quality dementia care training. In response to the recommendations of the Royal Commission the Commonwealth Government commissioned Dementia Training Australia to develop Australia's first standards framework for dementia education and training.

### **Framework Development**

A co-design process involving people with living experience of dementia, subject matter experts and key industry groups has been utilised to create a National Dementia Education and Training Standards Framework. The framework outlines key outcomes in both knowledge (what staff should know) and skills (what staff should be able to do). 14 Dementia learning Domains were identified, and 4 Tiers of learning agreed upon. These progress from a basic introductory level through to expert level and are applicable to all staff as well as community, family and the person living with dementia. Within each Domain and Tier sits key learning outcomes that form the standards framework.

### **Implementation**

The framework provides a useful reference point for individuals to ascertain what dementia skills and knowledge they should be developing through their career progression and supports them to seek training with learning outcomes that align to the standards. The framework will also prove a useful guide for curriculum development across a wide range of dementia training situations. Organisations will find the framework useful in developing staff training plans to ensure high quality person-centred care is delivered to people living with dementia.

## Associated factors of resilience in optometry students across six countries

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<sup>1</sup>The University Of Melbourne, <sup>2</sup>Singapore Polytechnic, <sup>3</sup>Elite School of Optometry, <sup>4</sup>Hong Kong Polytechnic University, <sup>5</sup>State University of New York College of Optometry, <sup>6</sup>Manipal Academy of Higher Education, <sup>7</sup>Aston University, <sup>8</sup>Ngee Ann Polytechnic

### Introduction/Background

Australian optometrists experienced increased prevalence of psychological distress, mental health conditions and burnout as compared to the general population,<sup>1</sup> which could result in poor patient care and errors. Resilience, a dynamic process encompassing positive adaptation within the context of significant adversity, has been shown to prevent burnouts amongst other personal and professional benefits. Increasing recognition of resilience as an important healthcare professional attribute supports the need for resilience education during healthcare student training. The current limited literature about resilience in optometry students<sup>2</sup> presents a barrier to developing appropriate interventions that build resilience in the next generation of optometrists. Hence, this study aims to evaluate resilience levels and its associated factors (mindfulness, self-efficacy, emotional states, and coping skills) in optometry students.

### Methods

Students enrolled in optometry schools across eight institutions, six countries were invited to participate in an online survey that was opened for 3 weeks within the period of April 2023 to January 2024. The survey comprised of demographic data, valid questionnaires on resilience, mindfulness, self-efficacy, emotional states, and coping skills. Descriptive statistics and linear regressions are used for analysis.

### Results/Evaluation

A total of 294 valid responses were collected. There were no significant differences in resilience scores between countries. Predictors ( $p < 0.05$ ) of higher resilience scores included higher self-efficacy, positive emotions, acceptance coping method and higher academic grades. Additional predictors included lower behavioural disengagement, having dependents, and having no financial assistance. Amongst the 3 countries with sufficient responses, self-efficacy was found to be a common predictor of resilience.

### Discussion

Identifying factors that affect resilience in optometry students provides information for targeted strategies that enhance resilience. Self-efficacy is a common predictor for resilience. More work is required to understand the generalisability of these results, impact of culture on resilience and appropriate intervention methods.

### References

1. Bentley, S. A., et al. (2021). "The mental health and wellbeing survey of Australian optometrists." *Ophthalmic and Physiological Optics* **41**(4): 798-807.
2. Ching, S. S. Y. and K. Cheung (2021). "Factors affecting resilience of nursing, optometry, radiography and medical laboratory science students." *International journal of environmental research and public health* **18**(8): 3867.

## What can be done about workplace wellbeing in Emergency Departments? 'There's no petrol for this Ferrari'

**Dauids J**<sup>1</sup>, Bohlken N<sup>1</sup>, Brown M<sup>2</sup>, Murphy M<sup>1,2</sup>

<sup>1</sup>Western Sydney Local Health District, <sup>2</sup>University of Sydney

### Introduction

Workplace wellbeing encompasses all aspects of working life. Peak health organisations recognise the value of healthy workplaces, and that poor workplace wellbeing is costly to individuals and the organisation. Workplace wellbeing improves when its barriers are acknowledged and addressed, and protective factors are promoted.

The Emergency Department (ED) is a place of intense activity, exacerbated by high workloads and overcrowding. This impacts negatively on patient care, staff safety and wellbeing.

### Methods

We held seven focus groups across four metropolitan EDs to discuss barriers and enablers to wellbeing and ways to improve staff working experience. Data saturation was reached at 30 participants in seven focus groups. We applied Braun and Clarke's six-step approach to arrive at four core themes: Workplace Satisfaction; Barriers to Wellbeing; Organisational Culture that Prioritises Staff Wellbeing; Self-care and Self Compassion.[1]

### Results

Workplace satisfaction is supported by competence and professional development opportunities; staff connection with their patients and team and exercising control within the environment. Barriers to wellbeing include excessive documentation and the misalignment of aims between clinical staff and management; systemic issues can cause feelings of powerlessness, anxiety and sleeplessness, and hinder staff performance. Obligation to the team can result in missing breaks and reluctant overtime. Organisational prioritisation of staff wellbeing, self-care and compassion are essential.

From this, we collaboratively developed a staff wellbeing framework based on Competence, Connection and Control.

### Discussion

The ED staff work in an environment that can practice 'Ferrari medicine' but has 'no petrol'. A strategic approach to understanding the values, culture and intrinsic motivation of staff is recommended before collaborating with practitioners to establish interventions, conditions and practices.[2] A contextualised staff wellbeing framework is an important initial step towards embedding a culture of wellbeing.

1. Braun, V. and V. Clarke, *Using thematic analysis in psychology*. Qualitative Research in Psychology, 2006. **3**(2): p. 77-101.
2. Bennett, J.B., et al., *Creating workplace well-being: Time for practical wisdom*, in *The handbook of stress and health: A guide to research and practice*. 2017, Wiley Blackwell: Hoboken, NJ, US. p. 570-604.

## Placement poverty: Preliminary survey findings on the financial impact of professional placement on university students in Australia and New Zealand

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### Introduction/Background

Student wellbeing is impacted by the current financial environment (1). One additional stressor for students are the costs incurred to complete unpaid, mandatory professional training placements (i.e. "placement poverty").

The aim of this survey was to describe the impact of professional placement on university students completing mandatory professional placements in Australia and New Zealand.

### Methods

This survey was derived from a previous survey distributed to nursing students (2) and included additional questions on food security. The survey quantified the type and nature of costs incurred for their most recent professional placement experience including accommodation and travel, as well as the impact of placement.

Eligible participants were students completing mandatory professional placement in any Australian or New Zealand University. Surveys were distributed via email to professional networks via university, faculty and school networks.

### Results/Evaluation

Approximately 663 responses were received (n=574 useable responses). Most health professional respondents (n=375) were studying psychology (27.5%), dietetics (26.4%) or social work (11.2%). Most were female (88.7%) with a median age of 25 years (IQR: 23-31), domestic students (93.9%) and studying full time (88.8%). Most students travelled <100km from home for their most recent placement (75.1%). The median length of the most recent placement was 25 days (IQR: 20-60).

The median cost of accommodation for their most recent placement was \$250 per week (range \$20-2200 per week). Median total costs for placement were \$1500 per person (IQR: \$600-3264). Most students (80.9%) were engaged in part time, casual or full time work. Students reported that costs determined placement preferences sometimes (41.8%) or always (22.4%). Food insecurity was experienced by 77% students during placement, with 29% of students reporting skipping meals and experiencing hunger regularly.

### Discussion

Placement poverty was experienced by health professional students in 2023. Advocacy and strategies are required to help prepare students for placement costs.

### References

1. Green E. 'Impossible': Student slams uni costs amid cost of living crisis. newscomau. 2023 March 14, 2023.
2. Usher K, Fagan A, Brown JA, Mather C, Marlow A, Power T, et al. The financial challenges for Australian nursing students attending placement-based work-integrated learning. *Collegian*. 2022;29(2):154-60.

## Hot-Debriefing; teaching through Simulation and Communication Training

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<sup>1</sup>*Deakin University*

### **Introduction/Background**

Hot debriefing is targeting debriefing with staff immediately following a significant clinical event. The aim is to build insight and teamwork whilst maximising psychological safety of staff.(1) Barriers to hot debriefing are time constraints, lack of appropriate training, clinical demands and cognitive load.(2) We developed a novel interprofessional half day training course for a paediatric department to address some these barriers.

### **Methods**

Paediatric Consultant and Nursing staff attended a novel Paediatric SimCom Hot- debriefing program. The program was run by facilitators trained in communication from ICU, ED and anaesthetic departments. The bespoke program was designed to introduce hot-debriefing, and then run several simulations of clinical scenarios for the team. The scenarios included the unexpected deterioration of a child with febrile neutropenia, a neonatal resuscitation and a Code Grey. Prior to each clinical scenario one participant was designated to “hot debrief” the scenario. Facilitators then debriefed the hot debrief.

### **Results/Evaluation**

Participants universally found the program useful, and reflected on unexpected learnings regarding the hot debrief. In particular – participants reflected that hot-debriefing, rather than being an added clinical burden, allowed the team to process and continue their shift more effectively than before. Furthermore, feedback included an understanding that hot-debriefing was not confined to resuscitation scenarios, but would be as useful in Code Greys, challenging procedures and challenging communication interactions. All participants expressed a desire to implement the hot-debriefing in their day-to-day clinical practice.

### **Discussion**

Feeling psychologically safe at work can be challenging following a significant clinical incident. Hot debriefing had been shown to improve the psychological safety of workers. Our half day program was an effective way of both training and gaining buy-in of the importance of hot debriefing.

### **References**

1. Tan H Debriefin after critical incidents for anaesthetic trainees. *Anesth Intensive Care*. 2005; 33(6):768-72
2. Rose S. Cheng A. Charge nurse facilitated clinical debriefing in the emergency department. *CJEM* 2018:1-5

## From 'me' to 'we': Co-creating wellbeing and safe clinical learning environments through embodied practices

**Ramirez Duran D**<sup>1</sup>, Uahwatanasakul W<sup>1</sup>, Johnson C<sup>1</sup>

<sup>1</sup>University Of Melbourne

### Introduction/Background

Having a sense of safety in learning environments (LEs) is pivotal for effective learning and for teacher and student health and wellbeing. This has only been recently investigated in clinical LEs, with existing literature mainly looking at psychological, social and organisational factors<sup>1</sup>. Our autonomic states play a key role in our sense of safety, enhancing or thwarting the capacity for social engagement and higher cognitive functioning required for learning<sup>2</sup>. Thus, an embodied perspective is fundamental for teachers to effectively co-create safe and thriving clinical LEs with their students. Drawing on evidence-based embodied practices from yoga, the aim of this workshop is to equip participants with strategies to enhance awareness and regulation of autonomic states in oneself to facilitate co-regulation, a sense of safety and social engagement in clinical LEs.

### Methods

The main methodology guiding this workshop will be experiential learning. This involves engaging in direct experiences and reflecting on them to develop knowledge and skills on self-awareness and self-regulation of autonomic states. Experiential activities based on yoga include breathing, movement and attention/concentration exercises. This will be linked to relevant empirical and theoretical literature across the fields of education, neuroscience, yoga and wellbeing to consolidate learnings. The Polyvagal Theory will be used to underpin the reasoning for using different techniques for self-awareness, self-regulation and social engagement.

### Results/Evaluation

By the end of the workshop, participants should be able to: demonstrate an understanding of key concepts for creating safe clinical LEs from an embodied perspective; apply key concepts and strategies to their own context; and evidence a reflective approach to the co-creation of safe clinical LEs

### Discussion

The sense of safety is deeply rooted in our bodies, affecting our mental and social functioning. Bringing an embodied approach into clinical LEs has the potential to improve individual and collective learning and wellbeing.

### References

<sup>1</sup> McClintock, A.H., Fainstad, T., Blau, K., & Jauregui, J. (2023). Psychological safety in medical education: a scoping review and synthesis of the literature. *Medical Teacher*, 45(11), 1290-1299. <https://doi.org/10.1080/0142159X.2023.2216863>

<sup>2</sup> Porges, S.W. & Porges S. (2023). *Our polyvagal world: How safety and trauma change us*. Norton: New York.

## What does well-being mean to residents?

**Loo M**<sup>1</sup>, Khoo H<sup>1</sup>, Teo W<sup>1</sup>

<sup>1</sup>*National Healthcare Group*

### **Introduction/Background**

Poor well-being may have detrimental effects on physical and psychological health of residents, and is often associated with burnout in health professionals. The aim of this study is to understand residents' perspectives about their well-being to facilitate the development of support strategies through residency years.

### **Methods**

Qualitative methods are ideally suited to provide a deeper understanding of residents' perspectives about their well-being. Using a seven-phase methodology for synthesising qualitative studies, we conducted a meta-ethnography to understand residents' perspectives about their well-being. Databases (PubMed, Embase, PsycINFO) were searched on 17 June 2021 for studies that met the inclusion criteria and fifteen studies were identified. A line-of-argument synthesis was conducted to integrate the similarities and differences among the studies to produce a new conceptual model. In addition to the meta-ethnography, a qualitative study was conducted at a hospital in Singapore, using in-depth semi-structured interviews. Junior and senior residents across different specialties were invited to participate in a face-to-face interview. 12 residents were interviewed and thematic analysis is used to analyse the data.

### **Results/Evaluation**

The synthesis of literature shows that resident well-being could be framed in three broad themes: 1) what the resident experiences internally at the individual level (e.g., feeling overwhelmed), 2) what is visible externally to others (e.g., compassion/apathy), and 3) socioenvironmental conditions (i.e., relationships, opportunity to recharge) that could mitigate or aggravate well-being. We are currently analysing the interview data to continue to shape the conceptual framework. A key emerging theme is how the interaction of internal and external factors affect well-being.

### **Discussion**

Our findings thus far highlight how internal and external factors interrelate to influence resident well-being. By conceptualising well-being this way and building on the framework, support strategies can be more targeted, addressing both the internal, individual experience and external social or organisational conditions that enable or impede well-being.

## Facilitators and challenges of allied health new graduate transition to work in the hospital setting: A systematic review.

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### **Introduction/Background**

It is well established that transitioning to the hospital workplace as a new graduate clinician is challenging and a period of great stress. Change in role, responsibilities and identity are challenges for the early career professional and unsuccessful transitions result in new graduate attrition from the workplace and the profession. The majority of the literature has focussed on the medical and nursing disciplines with the experience of allied health new graduates poorly understood. Addressing this transition is crucial as allied health graduates are an integral part of building a sustainable, effective, and diverse healthcare workforce. This review aims to identify challenges and facilitators of these graduates' experiences in their transition to the hospital workplace to identify strategies to assist and optimally support these clinicians.

### **Methods**

Three online databases (MEDLINE, CINAHL and EMCARE) were systematically searched to December 2023 for studies identifying facilitators and challenges of transition to work for six hospital based allied health disciplines (Physiotherapy, Occupational therapy, social work, respiratory therapy, speech pathology and dietetics). Studies were appraised using the Critical Appraisal Skills Programme and data synthesis was guided by the framework of Thomas and Harden (2008).

### **Results/Evaluation**

Study identification and data synthesis remains ongoing and will be completed prior to conference presentations.

### **Discussion**

Given the importance of adequate preparedness for the workplace, not only for new graduates but for employers and patients, the results of this study are imperative to inform university curriculum changes and workplace innovation to better support new graduate health professionals.

## Working on Wellbeing: The Journey of the Rural Clinical School of Western Australia

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<sup>1</sup>*Rural Clinical School Of Western Australia*

### **Introduction/Background**

The Rural Clinical School of Western Australia (RCSWA) is an innovative, creative response to the rural doctor shortage. It is a high reward, high risk program. The rewards are the attraction and retention of new medical staff into rural communities. The risks are due to the decentralised nature of the program which takes training to remote rural locations with all the inherent challenges of isolation and limited resources. The wellbeing of students and the staff who support them is of paramount importance. Doctors and medical students experience high rates of distress and burnout and working and living in remote locations can heighten this risk. Therefore, the RCSWA has always implicitly considered wellbeing. However, in response to a cluster of critical incidents within the RCSWA, the organisation decided to be explicit about wellbeing.

### **Methods**

We describe the response of the RCSWA which we named the RCSWA Wellbeing Initiative. The response was multifaceted including organisational and individual changes. The school's response was guided by the nationwide strategy, "Every Doctor Every Setting". (1) A Wellbeing Working Party (WWP), comprised of academic and professional staff, was established with a mandate to raise the profile of wellbeing in the organisation and to implement wellbeing strategies. The school developed a Wellbeing Toolkit designed to support students struggling with threats to their wellbeing.

### **Results/Evaluation**

The innovations have resulted in regular discussions around wellbeing by staff and students. The WWP has continued to grow in its membership but also in its influence and innovations. As the program matures RCSWA is seeing an increase in local site-specific wellbeing initiatives, reflecting its decentralised grass-roots nature.

### **Discussion**

The RCSWA wellbeing initiative respond to the complexities of delivering a challenging medical school curriculum in remote rural sites. It provides a solid foundation and pre-existing discourse when the inevitable organisational and individual struggles occur.

### **References**

Everymind. *Every Doctor Every Setting*. New South Wales Health, 2019.

## Beyond books: Exploring holistic wellness programs for postgraduate allied health students.

**Smart S**<sup>1</sup>, Ross K<sup>1</sup>, Hill E<sup>1</sup>, Jones K<sup>1</sup>, Cummins A<sup>1</sup>, Gribble N<sup>1</sup>, Gardner P<sup>1</sup>, Boyes M<sup>1</sup>, Parsons D<sup>1</sup>

<sup>1</sup>*Curtin University*

### **Background:**

Recognising the growing concern for the well-being of students in demanding academic environments, the study aimed to provide insights into the effectiveness of existing wellness programs and their relevance to the unique challenges faced by postgraduate students in the allied health field, specifically focusing on postgraduate speech pathology students.

### **Methods:**

A mixed-methods approach was employed, consisting of a scoping review of postgraduate allied health wellness programs and a survey administered to postgraduate speech pathology students. The scoping review involved systematic searches across three academic databases to identify relevant literature. Five primary studies met the inclusion criteria, contributing to the synthesis of existing knowledge. A total of 33 participants completed an online survey providing insights into their experiences and preference regarding wellness programs.

### **Results:**

Scoping review results indicated a limited evidence-base of postgraduate allied health wellness programs. Positive trends and statistically significant reductions in anxiety and stress, and increases in well-being were reported. Survey results highlighted that postgraduate student preferences for wellness programs included face-to-face sessions, involving the whole class, integrated into the curriculum, weekly to monthly frequency and the lack of a requirement for payment to participate. Participants expressed a preference for in-class brain breaks and the use of technology, such as the Happiness app as viable well-being program options.

### **Conclusion:**

This study extends on the limited existing literature to understand how wellness programs can be integrated specifically for postgraduate allied health students. The mixed-methods approach allows for a nuanced understanding of both existing literature and the lived experiences of postgraduate students. The positive trends and emerging significant improvements in anxiety and stress, and improvements in well-being suggest the potential effectiveness of targeted wellness initiatives and emphasise the importance of tailoring wellness programs to meet the specific needs of postgraduate students in the allied health field, fostering a supportive learning environment.

Keywords: well-being, allied health, postgraduate, students, speech pathology

### A six-year follow-up audit of graduating medical students' opportunities to perform breast examinations

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<sup>1</sup>*University Of Auckland*

#### **Introduction/Background**

The breast examination is considered to be a 'sensitive' examination. There are concerns that opportunities to practice have fallen and students may be graduating with little experience. Our aims were to quantify how many breast examinations have been performed by medical students at the point of graduation and identify any trends over a six-year period.

#### **Methods**

A self-completed, online, anonymous questionnaire was developed. Data were collected in the last week of the final year of the medical programme at the University of Auckland in 2013 and 2019.

#### **Results/Evaluation**

The response rate was 50% (94/190) and 35% (93/265) in 2013 and 2019, respectively. In 2013, 7% of students had never performed a breast examination on a real patient and 46% had performed between 2-5 breast examinations. In 2019, 12% of students had never performed a breast examination on a real patient and 44% had performed between 2-5 breast examinations. Male medical students performed significantly fewer breast examinations as compared with female students (2013 and 2019 data combined; Pearson Chi-Square,  $P = 0.01$ ). There was no significant difference in the number of breast examinations performed between the 2013 and 2019 cohorts (Pearson Chi-Square,  $P = 0.495$ ).

#### **Discussion**

Most medical students have performed a breast examination as part of their undergraduate training; however, some students have never performed this sensitive examination on a real patient at the point of graduation. Male gender was associated with performing fewer breast examinations. There was no statistically significant difference in numbers performed for the breast examination over the 6-year period.

Questions arising are:

Is the breast examination a core skill?

How many breast examinations on average are needed by graduation?

What changes need to be made to ensure that students have adequate learning experiences?

## Application of simulation-based learning in postgraduate internship: A pilot study

**Lim E<sup>1</sup>**

<sup>1</sup>*Te Whatu Ora Health Nz Waitaha Canterbury*

### **Introduction/Background**

Simulation-based learning (SBL) is known to cultivate the development of procedural skills and provide a sense of familiarity in managing uncommon clinical scenarios. The application of knowledge and critical thinking into practical decision making is a key learning component in SBL. The use of SBL in undergraduate medical education has been well described in the literature. This has also been adopted in postgraduate residency training such as surgery and emergency medicine. However, its utility in postgraduate internship year is not well described. Depending on the geographical area of clinical practice, learning during postgraduate internship year can either be self-directed or case-based discussions. In addition to this, finding the balance between clinical workload and dedicated teaching time can be difficult. Our study is aimed at assessing the efficacy of implementing simulation-based learning in improving confidence and learning during internship year.

### **Methods**

A prospective pilot study was carried out involving postgraduate year 1 (PGY 1) and year 2 (PGY2) interns in a tertiary teaching hospital. Three simulated sessions were performed as part of the study. An electronic survey questionnaire was sent out to assess the confidence of each intern before, during, after and at follow-up based on a 5-point Likert scale.

### **Results/Evaluation**

A response rate of 75% was achieved in this study. A transition from 'not confident' to 'somewhat confident/confident' was seen in the study cohort. This result was also preserved at follow-up 3 months after each session.

### **Discussion**

Our study demonstrates the benefit of SBL in postgraduate internship year. The advantages in our study are the utilisation of a 'pause-and-discuss' approach to allow for consolidation of key learning points in tackling an uncommonly faced clinical scenario in each session. This was followed by a debriefing session to summarise key take home learning points.

## Evaluation of senior medical students' logbooks for learning activities associated with health advocacy

**Jones N**<sup>1,2</sup>, Williams B<sup>1</sup>, Ogden K<sup>1</sup>, Church R<sup>1,3</sup>, Macintyre K<sup>1</sup>, Giles L<sup>1,3</sup>, Collins E<sup>1</sup>, Harvey R<sup>1</sup>, Dallas A<sup>1</sup>, Shires L<sup>1</sup>

<sup>1</sup>University Of Tasmania, <sup>2</sup>University of Newcastle, <sup>3</sup>Tasmanian Health Service

### Introduction

The health practitioner's role as a 'Health Advocate' for patients, communities and populations is critical to reduce health inequities and improve health outcomes in a sustainable manner. One of the four domains, Domain 3, set by the Australian Medical Council (AMC) for medical graduate requirements comprises Graduate Outcomes statements (GOs) pertaining to health advocacy. Providing opportunities for students to develop these GOs, and assessing them, however, is challenging.<sup>1,2</sup>

The University of Tasmania's medicine program employs a longitudinal portfolio in which students provide evidence of their learning against each of the AMC GOs, reflecting on their experiences and implications for future practice.

By analysing student portfolios, we aim to appreciate how students currently view their own development as Health Advocates and inform strategies for educators to maximise opportunities for students to develop and demonstrate competency.

### Methods

Descriptive statistics will be used to analyse data from over 200 portfolios submitted in 2022-23, to quantify the evidence provided per GO and the relative contribution of formal and informal curricula, as well as extracurricular activities. Student reflections on the educational impact of the evidenced activities and how they plan to integrate them into practice will be thematically analysed.

### Evaluation

The presentation will briefly describe the Portfolio Assessment as a potential methodology in the evaluation of health advocacy and present the qualitative and quantitative analyses of evidence provided to meet the GOs pertaining to health advocacy.

### Discussion

We anticipate that the portfolio data will provide a rich understanding of how health advocacy is currently integrated into student learning activities and an appreciation for how students conceptualise and interpret each GOs. Comparing this with the intent of the GO will provide us with key insights into effective pedagogical strategies for health advocacy curricula.

### References

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2. Mehta SH, Shah NR. Integrating Public and Population Health into Medical Education Curricula: Opportunities and Challenges for Reform. *Acad Med*. 2023;98(12),1348-1350. Available from: <https://doi.org/10.1097/ACM.0000000000005469>

## Unfolding Narratives: using arts health approaches to facilitate skills in responding to patients in difficulty

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### Introduction/ Background

The therapeutic relationship engages empathy and compassion, a core value at the heart of nursing care, that enhances the nurse's ability to use their clinical reasoning or their ability to 'think like a nurse' when responding to the complex nature of another person's illness (1). However, conditions such as dementia, delirium and mental illness present challenges to developing a therapeutic relationship that necessitate further education for undergraduate and postgraduate nursing students. This Arts Health project presents scenarios that encourages learners to critically reflect on their own attitudes and consider how their communication impacts care delivery. Three short films have been co-created with nursing clinicians, researchers, a theatre professional and filmmakers and have been used as a catalyst for change.

### Methods

Evaluation of the impact of one of the films has been achieved by asking students to complete the *Debriefing Experience Scale* (2) with an additional five open text questions to confirm whether the films embedded in an education package encouraged them to reflect on how they communicate with a patient who is experiencing thoughts of self-harm. Data analysis of quantitative (descriptive statistics) and qualitative (thematic analysis) data is underway with preliminary positive results.

### Results/Evaluation

The film was shown to 1000 pre-registration nursing students across four campuses of a major metropolitan university in NSW. There were 86 (9%) responses to the survey, of which 50% identified as CALD demonstrating a high degree of diversity. Preliminary data suggests a high degree of engagement and acceptability among students.

### Discussion

Arts health approaches create authentic and engaging scenarios when co-scripted with clinicians and an expert theatre professional and filmmakers. Films not only reflect the complexity of practice but are appealing to students. This Arts Health approach to developing resources has potential for transfer across the healthcare professions.

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## Knowledge sharing: university students with early childhood educators

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### **Introduction/Background**

The early childhood (EC) years and educators play a critical role in fundamental movement skill (FMS) development. Educators need to feel confident and competent to deliver a FMS program and one cost-effective method to provide staff training is knowledge sharing activities such as student-led programs. Limited literature explores knowledge sharing of FMS education by students with EC educators. Therefore, the aim was to explore the impact of knowledge sharing on educator philosophies regarding FMS post-intervention which included novel exercise science student-led prescription and delivery of FMS programs at EC settings.

### **Methods**

Student-led FMS programs were delivered across five weeks. Sessions included demonstrations of the exercises, engagement strategies, and opportunities to discuss the program. Post-intervention, educators (n=11) were invited to participate in an audio recorded interview which included educators' perceptions of FMS and the program. Audio transcriptions were thematically analysed.

### **Results/Evaluation**

Post-intervention, the educators indicated that the knowledge sharing experience elicited reflection of their practices e.g. "I think there was some things that we noticed, the other teacher and I did a little bit of a reflection on our own and we noticed that children really struggle with bouncing and dribbling the ball." Similarly, the knowledge shared provided practical examples of how FMS can be delivered, e.g. "I think it definitely helped me to see how engaged they were and how small groups is really effective. I thought splitting them up and having modelling and then they have a go, and really demonstrated how the skill should be done".

### **Discussion**

The knowledge sharing of a FMS program prescribed and delivered by students resulted in some thought-provoking reflections from the educators. The demonstrations and programs at EC may provide a cost-effective and practical opportunity for university students to gain hands-on experience while simultaneously providing regular professional development to EC educators.

## 39 years of Health Care Evaluation Projects for final year medical students

**Dockerty J**<sup>1</sup>, Hancox R

<sup>1</sup>*University Of Otago*

### **Background:**

For 39 years at Otago Medical School in Dunedin, a 'Health Care Evaluation Project' (HCEP) has been a learning requirement for final year students.

The project is a practical way to learn team work, appraisal of research, evidence-based practice, clinical audit and self-reflection. Projects are conducted in groups of 10, over 6 weeks part-time. Groups are supported by an experienced researcher and a health practitioner. Topics are relevant to the evaluation of health care.

On completion, student groups give a presentation and write a report. Some are published – boosting learners' CVs.

### **Method:**

We reviewed projects students have conducted since 1985. We summarised topics and student evaluations, and reflected on lessons learned in response to challenges.

### **Results:**

314 projects have been completed on an enormous variety of relevant topics. Student ratings have varied depending on the topic, supervisors and challenges faced. Generally, they indicated that they learned or accomplished a moderate amount; they rated most supervisors as positively encouraging and the learning environment as supportive. A minority thought the project was a waste of time. Verbatim comments illustrated the breadth of student views, eg: "Very helpful project", "Great teamwork", "Interesting topic with clinical relevance", "Time constraints", "Beaurocracy", "Lack of direction", "This project was right up my alley".

### **Discussion and Conclusions:**

These projects have encouraged reflective learning and made contributions to evidence based practice, while answering useful clinical audit questions for practitioners. Over time, it has taken longer to obtain ethics and locality approvals; and there have been increased pressures on staff and student time. Creative ways have been found to solve most of these problems.

### **Take-home Messages:**

Many valuable projects have been completed. These are good opportunities for learners to evaluate quality, to work in a team, and to contribute to the evidence base for effective health care.

## Reinventing the didactic lecture in forensic psychiatry

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Medical students posted to the Institute of Mental Health in Singapore for their psychiatry posting receive didactic lectures, bedside tutorials with live mental state examination and case discussion tutorials. I was newly tasked to take over didactic lectures in my subspecialty of forensic psychiatry, and was thinking of ways to make the traditional didactic lecture more interactive and engaging.

My main innovation was to embed an interactive case study within my didactic lecture to teach students how to write a forensic report. I modified real forensic cases for the purpose of teaching. Firstly, I would give them the scenario - to assess the accused for a specific charge. I then challenged the students to discuss among themselves what sort of information a forensic report should include instead of just telling them what it should include. Next, I challenged them to apply the forensic report framework they came up with by eliciting the information they required with a live interview and mental state examination of myself role playing as the accused person in the case study. I followed up by showing them the police statement of facts for the case and finally what the actual report should look like.

My thoughts are that no matter how good a lecturer one is, purely didactic lectures need not be live and can always be pre-recorded to facilitate asynchronous learning. There is still a place for live lectures but these should incorporate interactive elements. There is a need to innovate beyond the strict boundaries of the traditional lecture-tutorial format to facilitate learning.

Feedback from students has been positive as they enjoyed the interactive element within the lecture especially the chance to do a live interview with the “accused” person in the assessment of a “real” case.

# Modified team-based learning (TBL) in the development of clinical and ethical decision-making skills of pre-clinical medical students

**Cantwell B<sup>1</sup>**

<sup>1</sup>*Charles Sturt University*

## Introduction

Team-based learning (TBL) has been demonstrated to be an effective approach to improving clinical decision-making skills and application of learner knowledge.<sup>1</sup> A modified TBL format was utilised to augment didactic pre-clinical medical student learning through a series of progressive disclosure case discussions. The program was delivered weekly throughout student's two-year pre-clinical training. The aim of the program was to improve student clinical decision-making and consideration of patient issues prior to clinical placements.

Students engaged in the facilitated step-wise assessment of a simulated patient with an experienced clinician. Immediate feedback is provided on history-taking, differential diagnosis and clinical decision-making throughout. Cases increase in difficulty throughout the two-year program, and incorporate patient issues and ethical dilemmas to simulate real-life clinical scenarios.

## Methods

A 3-year multi-cohort quantitative study will be undertaken to compare the clinical decision-making of pre-, hybrid- and post-intervention cohorts utilising Objective Structured Clinical Examination (OSCE) results and a clinical supervisor 'Readiness for Practice' survey as markers of proficiency.

## Evaluation

Pre- and post-cohort OSCE results will be compared for examinations in which clinical decision-making was an assessed feature to identify if performance improved in a formal examination setting. Supervisor 'Readiness for Practice' survey results will be compared to identify whether students' clinical decision-making in the clinical environment improved post-intervention.

## Discussion

The modified TBL approach was not resource intensive and easily implemented in a small rural medical school. Both pre-intervention and hybrid cohorts have progressed through pre-clinical training. Preliminary analysis demonstrated no clear improvement in OSCE results between pre intervention and hybrid cohorts. The post-intervention TBL program cohort will be assessed in late 2024 allowing for analysis of data.

Future research will aim to identify the effectiveness of online tutorials, and identify learning environment and group size factors which may impact on individual student performance in clinical decision-making.

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## Enhancing Podiatry Education: Integrating Pharmacy-Led Initiatives for Endorsement in Scheduled Medications (ESM).

**Chen J**<sup>1</sup>

<sup>1</sup>*Eastern Health*

### **Introduction/Background**

The Podiatry Board of Australia, in 2018, established new pathways for podiatrists to be endorsed to prescribe scheduled medications. In 2022, additional placement exposures were introduced to enable students to graduate with Endorsement for Scheduled Medicines (ESM) via the approved qualification pathway.

To support ESM learning experiences, pharmacy-led education was developed for podiatry students. Learning objectives focused on understanding the rationale for prescribing medications, safe prescribing and tailoring medications to individual's needs.

### **Methods**

Following consultation between pharmacy and podiatry departments, a two-hour pharmacy education session was devised for the 2022 placements. The face-to-face ward sessions were facilitated by an education and training pharmacist and included: medication scheduling; overview of clinical pharmacist activities, medication history-taking principles, medication reconciliation and counselling; medication safety; and case-based discussions on appropriate medication management plans focused around medication classes within the ESM framework (antibiotics, antifungals, analgesics).

### **Results/Evaluation**

Two ESM placements were held in November and December 2022, each with one student. In November 2023, the same program was provided to one ESM placement student.

Anecdotal feedback from the 2022 ESM indicated positive student reception of the pharmacy-led content. For the 2023 placement, evaluation was obtained through a feedback survey using a Likert scale and free-text fields. The quality of the learning experience, opportunity to ask questions and quality of the speaker/presentation were rated as 'excellent'. Knowledge gained from the session included "where to access information and resources on medications and identifying polypharmacy". Free-text feedback included request for case study preparation ahead of the education session.

### **Discussion**

The pharmacy session for the health service's podiatry ESM placements has been well received so far. Content can be repeated and delivered for subsequent ESM blocks, with regular review of student feedback and collaboration with the podiatry department to ensure currency and relevance of materials to promote safe prescribing.

## A Decade of Learnings: 10 years of the Allied Health Early Graduate Program

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<sup>1</sup>Monash Health, <sup>2</sup>LaTrobe University, <sup>3</sup>Monash University

### Introduction

The Allied Health Early Graduate program was established at Monash Health in 2013. The aim of the program is to provide education and support to graduates as they transition from student to allied health professional. In the 10 years since the program commenced, over 420 allied health professional graduates have participated in the program, all of whom have contributed to considerable evaluation and evolution of the program.

### Methods

The program has been provided via a variety of modalities over the ten years, including individual and group and face to face, online, and hybrid models. Evaluations are conducted after each session and further intensive evaluations have been conducted after any significant changes to the program. Evaluations are anonymous and include Likert scales and open-ended questioning. More recent evaluation measures have included online surveys for program evaluation pre and post program, in addition to session specific evaluation.

### Results

Evaluation has consistently evidenced over time that as a result of participation in the graduate program, participants feel they are valued by the organisation and feel connected to peers within the organisation. Further evidenced is that graduates require protected time to attend the allied graduate program sessions and value the opportunity to have one-to-one time with the allied health graduate program coordinator. Whilst online learning methods have been appropriate in some circumstances, evaluation results suggest the interaction that comes with face-to-face learning is beneficial to graduates.

### Discussion

Allied health workforce shortages suggest graduates have far more options than ever before. If public health is to compete with these options, it is imperative that education and support provided to graduates is regularly reviewed with the graduate needs and voice in focus. Ensuring that both the content and the mode of delivery remains flexible as the needs of graduates evolves is crucial to the success of a graduate program.

## Practising interpreter-mediated communication interprofessionally: a qualitative study of bilingual medical students and student interpreters

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### Introduction/Background

In multicultural Australia, there can be miscommunication between patients and health care professionals due to lack of language alignment. This can compromise patient care outcomes. Contemporary medical education acknowledges the superdiverse society students will serve, yet medical and interpreting students seldom learn together. Medical education also tends not to draw on the language resources of the student cohort. This project investigated the experiences and perceptions of volunteer bilingual medical students and interpreting students learning interpreter-mediated healthcare communication interprofessionally.

### Methods

In this proof-of-concept qualitative study, we hosted workshops in which Doctor of Medicine and Masters of Interpreting and Translating students engaged in Zoom video-conference role-plays. Based on an interprofessional education framework, they simulated interpreter-mediated medical scenarios. After, participants were engaged in a focus group discussion on the experience and the implications of the teaching and learning approach. A thematic analysis of the focus group transcripts was conducted using an inductive approach.

### Results/Evaluation

Four IPE online workshops were conducted in 2022 involving 16 interpreting and medical students role playing as the patient/interpreter and clinician/observer respectively. Six themes were identified: patient care, trust and empathy in interprofessional practice, clinician communication behaviour, accuracy in interpretation, cultural considerations and bilingual benefits. In the interactive workshops, participants discussed the roles and responsibilities of both professions in facilitating patient care, optimal ways of co-working in hospitals, and strategies to learn from each other and co-construct knowledge to achieve better patient care. Given their bilingual capabilities, participants reflected upon the utility of their shared understanding of language and culture, evaluating how this contributed towards the clinician-interpreter working and communicating relationship, and the shared interprofessional experience in navigating cultural and linguistic diversity.

### Discussion

Students identified IPE as a beneficial learning mechanism and a psychologically safe space to learn with, from and about each other's professions, communication styles and ways of working. These insights could inform enriched curriculum development, recognising the presence and importance of supporting bilingual capabilities in medical students and the need for greater interprofessional learning and training.

## Homebirth Simulation Program – An integrated multidisciplinary learning experience enhancing the provision of care for home birthing mothers

**Giggins S<sup>1</sup>**, McCloskey K<sup>1,2</sup>, Rossiter G<sup>1</sup>, Pellizzeri S<sup>2</sup>, Turkson B<sup>1</sup>, Swinton C<sup>1</sup>

<sup>1</sup>Deakin University, <sup>2</sup>Barwon Health

### Introduction/Background:

Planned homebirths programs supporting women with low risk pregnancies to give birth in the community have multifaceted benefits. When conducted safely, home births are associated with lower rates of maternal morbidity and obstetric intervention, enhanced maternal birth satisfaction and improved breast-feeding outcomes.(1,2) The creation of such homebirth programs require innovative inter-professional training and accreditation.

### Methods

Midwives, in conjuncture with MICA and ALS Ambulance Victoria Paramedics and Fire Rescue Victoria Personnel attended a high-fidelity home birth simulation program, adapted from Practical Obstetric Multiprofessional Training (PROMPT) (3). This program was aimed at enhancing participants skills in managing unanticipated maternal and neonatal emergencies in a home-birth setting.

The program allowed participants to experience a number potential maternal and neonatal emergencies in a home environment. Each scenario required real world escalation processes & interprofessional collaboration (between midwives and first responders) to manage the patient's condition. The program was facilitated by midwives and paediatricians.

### Results/Evaluation

Participants universally found the program beneficial. In particular – participants reported the multidisciplinary approach to the program allowed an improved understanding of the differing scopes of practices that exist between midwives and paramedics; various escalation of care pathways; and increased participants ability to integrate effectively as a team, improving patient care.

Furthermore, the discussions & learnings identified from the program directly resulted in logistical and procedural changes to the creation of the formal home birth program enhancing the programs overall quality and safety prior to its implementation within the wider community.

### Discussion

It is important to have appropriate training and awareness to effectively managed any prehospital complication that can arise. Our half day program was an effective way of providing this training in a realistic multidisciplinary manner, as well as supporting the overall development of the program's design and policy enhancement.

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## Health professional students' emotional responses to effective and ineffective teamwork.

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<sup>1</sup>University Of Otago, <sup>2</sup>Massey University

### Introduction/Background

Pre-registration health professional students learn interprofessional competencies for effective teamwork through interprofessional education (IPE), yet they do not always see effective teamwork in the clinical workplace or experience it in IPE learning activities. We explored: 1. What do students recall of experiences of interprofessional teamwork interactions in workplace settings, or in IPE learning activities? and 2. What and how do they describe the emotion attached to these experiences?

### Methods

A pre and post-test survey design was used which included qualitative questions administered before and after a clinical workplace-based Cancer and Life-limiting Illness IPE activity for two cohorts of students. We surveyed students about teamwork experiences in both workplace and IPE learning activities and how they emotionally felt about involvement in them. A content and thematic analysis was undertaken, the latter using a process adapted from Attride-Stirling (2001).

### Results/Evaluation

In the before-IPE responses; 31 out of 50 students in the two cohorts responded (62%) and the after-IPE responses 29 out of 50 in the two cohorts responded (58%). There were two global themes 1) Students readily recognise both effective and ineffective teamwork in both workplace clinical activity and IPE learning activities; 2) Ineffective teamwork experiences can evoke strong negative emotional responses.

### Discussion

Student's emotional responses from being involved in or observing effective and ineffective teamwork may influence their future engagement in interprofessional teamwork and IPE activities. Care should be taken to offer opportunities to reflect on and debrief these experiences, particularly those evoking negative emotion.

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## Empowering Tomorrow's Leaders: The Transformative Impact of Student-Led Interdisciplinary Clinics on Holistic Education and Collaboration.

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### **Introduction:**

Interdisciplinary clinics prepare students for a dynamic workforce by reducing siloing of professions and broadening awareness of other disciplines. This project aimed to evaluate the learning outcomes of students participating in a student-led interdisciplinary clinic in a tertiary inflammatory bowel disease outpatient service.

### **Methods:**

Final year students from 3 disciplines were invited to participate in half day interdisciplinary outpatient clinics between July and December 2023. Students were trained to perform risk screening assessments including symptom screening, anthropometrics (waist, hip, calf, mid upper arm circumference (MUAC)), assessing diet histories, performing a subjective global assessment and physical performance tests (timed up and go, short physical performance battery and hand grip strength).

Students completed pre and post placement evaluation surveys using a 5-point Likert scale which rated confidence in communication, interdisciplinary practice and comprehension of interdisciplinary scope.

### **Results:**

Eighteen final-year dietetic, physiotherapy or exercise physiology students conducted 5-10 weekly half day interdisciplinary outpatient clinics, comprising 115 patients with IBD between July and December 2023.

Clinic participation improved student's communication skills with (9/14) 64% of students reporting self-rated high levels of confidence post clinic compared with (4/18) 22% pre clinic. Student's knowledge of interdisciplinary practice was self-rated as high confidence ((7/14) 50% post clinic compared with (1/18) 5% pre clinic).

Student's understanding of professional scope of practice and interdisciplinary team collaboration was self-rated as high confidence ((8/14) 57% post clinic compared with (4/18) 22% pre clinic).

### **Discussion:**

The pedagogical approach of a student-led interdisciplinary screening clinic demonstrated improved student confidence in communication, awareness of professional scope of practice and understanding of interdisciplinary team collaboration. In addition to ensuring timely identification of patient risk and improved access to early intervention opportunities, a student led Interdisciplinary clinic can empower students and be a valuable enabler for workforce capacity at a time when health service providers are stretched.

## Integrating perspectives: Empowering emerging allied health professionals through interprofessional education

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### **Introduction/Background**

The skills and ability to work within an interprofessional (IP) team are vital for allied health professionals in the delivery of person-centred integrated support. However, students and graduates report varying skill levels and opportunities to practice these skills throughout their degrees.

The University Centre for Rural Health supports multidisciplinary allied health students from multiple universities to complete service-learning placements in rural aged care and schools within the Northern Rivers region of NSW. The Clinical educator team has provided multiple structured and unstructured Interprofessional Learning (IPL) opportunities; however, student engagement has varied, and the objectives and frameworks used have been inconsistent. This project aims to deliver a structured and consistent interprofessional education program relevant to allied health professionals in the rural context.

### **Methods**

The multidisciplinary clinical educator team, consisting of occupational therapists, physiotherapists, speech pathologists, dieticians, social workers and allied health educators, met to reflect critically, consider the relevant literature and collaboratively plan for engaging in practical IPL sessions. Key learning outcomes were agreed upon, and a framework for delivering IPL sessions was developed. Commencing in February 2024, IPL sessions will be delivered monthly, in a hybrid format, utilising Zoom and with some students on site together when possible. These sessions will draw from student-centred, collaborative, problem-based and case-based learning approaches, where students present a current case study from their placement experience and pose a problem to the multidisciplinary team for students to work through. Technology, such as break-out rooms and interactive tools, will facilitate engagement, collaboration, and teamwork. Clinical educators will facilitate and guide the discussion to support the desired learning outcomes. Students completing their rural placement will be able to participate in at least 1 of the sessions with longer placements accessing more sessions.

### **Results/Evaluation**

Students will complete a short online survey post the IPL sessions to gather quantitative and qualitative data on the student's experience, learning outcomes and impact on future practice. Clinical educators will also collaborate to discuss their observations of students interacting in interprofessional teams.

### **Discussion**

Through the delivery and evaluation of the IPL sessions, we hope to demonstrate evidence-informed interprofessional education practice relevant to rural placements.

## Learning to prescribe- a confidence comparison pre and post a Prescribing Skills Workshop for Pharmacists and Physiotherapists

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### Introduction/Background

In 2023, the Queensland University of Technology (QUT) delivered a Safe Prescribing and Quality Use of Medicines (SP and QUM) Program to physiotherapists and pharmacists. The SP and QUM Program comprises three main components: virtual coursework with self-directed learning, a full day Prescribing Skills Workshop (PSW) and a period of learning in practice (LIP).

A one-day face-to-face PSW provided the learners with simulated scenarios for practical application of prescribing skills.

### Methods

A voluntary evaluation survey was distributed to learners. It utilised a 7-point Likert scale (1= no confidence whatsoever, 7 = completely confident) to evaluate their confidence in prescribing skills prior to and post the PSW.

Prescribing skills evaluated includes:

(1) Consultation skills when interacting with patients/carers; (2) Taking a best possible medication history (BPMH); (3) Being involved in preventing or reporting medication error; (4) Identifying appropriate therapeutic options; (5) Communicating with other healthcare professionals; (6) Discussing a patient's treatment plan; (7) Writing a prescription.

A quantitative comparison of the data was conducted using MS Excel.

### Evaluation

A total of 23 learners attended the PSW. Nine physiotherapists and 14 pharmacists responded to the survey. Both professions had an increase in confidence across all seven prescribing skills. Pharmacist confidence increased the most in (7) writing a prescription with an average improvement of 1.71 (4.21 to 5.92). Whereas, physiotherapists had confidence increased the most in (2) taking a BPHM with an average increase of 1.22 (3.44 to 4.66). Compared to physiotherapists, pharmacists recorded greater increases in confidence in elements (5), (6) and (7), with physiotherapists recording greater increases for (1), (2), (3) and (4).

### Discussion

The SP and QUM Program PSW successfully increased confidence in prescribing skills for physiotherapists and pharmacists. This is an imperative education component for non-medical prescribers' skills development.

## Enhancing Care and Connection: Understanding and Facilitating Student-led Interprofessional Practice Across the Life Span

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### Introduction/Background

It is well-established that interprofessional education is crucial in preparing a collaborative, practice-ready health workforce. While evidence supports interprofessional practice's (IPP) benefits, research concerning the facilitation and outcomes of IPP experiences for students remains limited (van Diggele et al., 2020), especially regarding student-led services across different life spans. This study examines two placements: one supporting children with developmental delays and their families and another working with people with chronic conditions in a disadvantaged community, to understand final-year Allied Health students' IPP comprehension and execution.

### Methods

Employing a mixed-method design, the study utilizes the Interprofessional Socialisation Values Scale (ISVS) the Student Perceptions of Interprofessional Clinical Education-Revised Instrument (SPICE-R2) measures alongside semi-structured interviews to gauge students' perceptions and experiences in two student-led IPP clinics. Data were collected from Occupational Therapy (OT) and Speech Pathology students in a university-based, paediatrics clinic (Health2Go) and from mostly final-year OT, Physiotherapy, Dietetic and Exercise Physiology students in a community-based, chronic conditions assessment clinic (CONNECT). This presentation reports on the thematic analysis of semi-structured interviews undertaken until there was no new information to gauge students' perceptions and experiences in two student-led IPP clinics. Qualitative data was collected from students from five disciplines who were on placement between May-November 2023 (181 weeks of placement).

### Results/Evaluation

Findings from the quantitative analysis showed significant improvements in students' IPP beliefs, attitudes, and behaviours ( $p=0.002$  and  $p<0.001$ ). Thematic analysis of nine interviews reveals two key overarching themes contributing to these outcomes: relational teaching and deep IPP learning. These resulted in students learning sophisticated professional (and interprofessional) skills and understanding holistic care.

### Discussion

Unpacking Allied Health students' experience of the processes and pedagogy that underpin successful IPP application across diverse student-led, practice-based placements, allows us to build practices that will enhance care and connection in their future practice.

### References

van Diggele, C., Roberts, C., Burgess, A. et al. Interprofessional education: tips for design and implementation. *BMC Med Educ* 20 (Suppl 2), 455 (2020).  
<https://doi.org/10.1186/s12909-020-02286-z>

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### Online participation analytics for early detection and intervention of academically at-risk medical students

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#### **Introduction/Background**

Increased availability of analytics data in electronic learning management systems has allowed real time tracking of participation and online engagement of students. Within this data, there is scope to allow early detection of students who are struggling with course material and are falling behind their cohort. The ability to detect early issues can have significant impacts on a student's trajectory in their studies.

#### **Methods**

New analytics data made available on the learning management system "Canvas" was used to detect the lowest 5% of students engaging in online material monthly in a post-graduate medical degree. Local educators were passed this information for direct follow-up and support.

#### **Results/Evaluation**

Across the year, the lowest 5% of students engaging on "Canvas" was relatively consistent. Early intervention led to several students moving out of the lowest 5% each month. None of these students required supplementary end of year exams. Of the students who remained lowest engagers by the end of the academic year, over half required some form of supplementary end of year examinations.

#### **Discussion**

Real time analytics on engagement with online material can be used for early identification of students who may be struggling with the course compared to peers. Students who had lower engagement on the LMS also tended to exhibit lower academic achievement. Early intervention can provide support for students who have not approached faculty yet, as online activity appears to be an early marker of overall performance. This should especially be considered in degrees with multiple sites or complex placement processes. Development of a structured framework to support these students, automatically generated reports and further investigation into analytics to support student learning should be explored.

Clue: A gamification strategy for health professions education involving intersecting words (9,7), Solution: crossword puzzles!

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### **Introduction/Background**

Educators consistently strive to employ effective approaches to engage learners. In recent years, gamification has increasingly been utilised with evidence suggesting a positive impact on learning (1). Crossword puzzles present one possible method for gamification within health professions education (HPE). This study sought to evaluate the evidence of educational impact of crosswords puzzles, as well as describe the characteristics of crosswords as reported in HPE literature.

### **Methods**

A systematic review of the databases PubMed, Embase and the Cochrane Library was conducted from inception to November 2022. The review was conducted in accordance with the PRISMA guidelines.

### **Results/Evaluation**

There were 29 studies which fulfilled the inclusion criteria, spanning seven healthcare professions. There was considerable variation in crossword structure and delivery, with the most common method of administration being group completion within teaching sessions. Crossword length varied from 10 to 60 stems, with stem styles including sentences, sentence fragments, and fill-in-the-blanks. The majority of learners reported that crossword puzzles were enjoyable, and perceived them to have a positive impact on content knowledge. Limited evidence suggested that crossword puzzles increased student knowledge on objective measures.

### **Discussion**

The available evidence suggests that crossword puzzles have a positive educational impact. The ideal design for crosswords within HPE has not been established. Participants highlighted both collaborative and competitive settings as positive aspects, and it is noted that these are not mutually exclusive. Evidence for objective knowledge gains were not unanimous, and studies were limited by methodological quality, suggesting a need for further research in this regard.

### **References**

Abdulmajed H, Park YS, Tekian A. Assessment of educational games for health professions: a systematic review of trends and outcomes. *Med Teach*. 2015; **37 Suppl 1**: S27-32.

## A pilot project exploring student-generated frameworks for the evaluation and utilisation of artificial intelligence in learning

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### Introduction/Background

Generative artificial intelligence (AI) platforms are rapidly evolving and have been promoted as a both a tool for the learning of medical students. It remains unclear how students are using these technologies. We conducted a pilot project which aimed to document collaborative staff and student thoughts on how students use and evaluate different AI platforms for self-directed learning.

### Methods

Three focus group sessions were conducted with four educators and six undergraduate medical students from the UNSW, Sydney and three postgraduate electronic engineering students from Kings College, London. Iteratively and progressively, a consensus framework for optimising the use of, and evaluating, current artificial intelligence technologies was developed. Specific focus areas included a 'wish list' for AI platforms, and evaluating their strengths, weaknesses and suitability for learning.

### Results/Evaluation

Students reported varying levels of confidence and experience with using generative artificial intelligence as learning tools. Features that students seek includes ease of use and accessibility, personalisation and adaptability, content quality and relevance, interactive learning features, source transparency, bias recognition, integration with existing tools and cost-effectiveness. AI platforms had different peculiarities to navigate, but better results were obtained by being explicit with iterative prompts including output style and length, specifying purpose, and pushing programs to 'break' with increasingly difficult questions.

### Discussion

Qualities that students seek from AI programs reflect the critical thinking and evaluation of sources that educators expect of students. Students were cognisant of the deficiencies, limitations and potential biases of artificial intelligence platforms. Currently, the advantage of AI platforms is in speed and ease of use and these features, with appropriate caveats and guidance for students, could be leveraged to create effective learning tools. Further research based on this pilot project would seek to develop practical recommendations regarding use of AI for health professional students, and potentially developing a course-specific 'bot' with parameters specific to health-disciplines.

# Adopting Self-Directed Learning Principles in Clinical Education with Pebblepad

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## Introduction/Background

Self-directed learning (SDL), alternatively known as self-regulated learning (SRL), is an umbrella term that can be broadly defined as the learner's ability to make plans according to their individual needs and use learning resources and methods to master a knowledge or necessary skills. It is the self-management of the learning and thus is a systematic control of motivation and tightly linked to self-awareness, agency, and the sense of being in control of the learning process. Despite ever increasing reference to SDL in health professions education, it is not well-studied in clinical settings (Lui & Sullivan 2021, Murad et al. 2010).

## Methods

In 2021-2023 we adopted some of the main principles of the SDL approach, namely goal setting, self-monitoring, self-reflection, self-evaluation, to clinical education and assessment in Bachelor of Oral Health and Doctor of Dentistry programs at the University of Melbourne by utilising a digital e-portfolio platform, Pebblepad.

## Results/Evaluation

We supported our students to a) identify gaps in application of their clinical knowledge via learning analytics dashboards, b) generate goals for improvement through structured reflection and c) assess their practice through self-evaluation rubrics. However, we also encountered setbacks in efficient utilization of digitalized clinical assessment forms. We take this opportunity to reflect on areas for improvement and share lessons learned in application of innovative tools in clinical education settings.

## Discussion

We are still improving clinical assessment forms to foster SDL in our programs. We believe an inclusive iterative design process and programmatic approach will allow us to refine our strategies and tools. We can reach our goals in SDL and clinical education via continuous communication with our students, teaching and learning staff and clinical supervisors.

## References

Liu, TH. & Sullivan, A.M. (2021). A story half told: a qualitative study of medical students' self-directed learning in the clinical setting. *BMC Medical Education*, 21(494).

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Murad, M. H., Coto-Yglesias, F., Varkey, P., Prokop, L. J., & Murad, A. L. (2010). The effectiveness of self-directed learning in health professions education: a systematic review. *Medical Education*, 44(11), 1057–1068. <https://doi.org/10.1111/j.1365-2923.2010.03750.x>

## Generative AI integration: How does technology enhanced learning promote faculty development and collaboration?

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### Introduction

At the University of South Australia, our undergraduate nursing and midwifery programs operate independently within the clinical and health sciences unit. Within each program, the exchange and development of technologically enhanced learning concepts has fostered greater collaboration and collegiality between the two professions. Recently, we have come to appreciate the advantages of this collaboration as we work towards integrating Generative Artificial Intelligence (Gen AI) into our curricula for 2024. The introduction of Gen AI models poses both educational challenges and pedagogical opportunities for our academic staff, with some colleagues expressing reservations. Notwithstanding, our fundamental ethos revolves around preparing students for the workforce, thus necessitating an understanding of how digital technologies will shape their future careers.

### Methods

To meet the innovation challenge of incorporating a technologically enhanced learning experience, we taught the responsible use of AI ChatGPT in stage one courses for both nursing and midwifery. The skills required to use ChatGPT for a written assignment were scaffolded throughout the courses. Implementation of this initiative required collaboration across all three campuses (metro and rural) and collegiately between both nursing and midwifery academics in the undergraduate programs.

### Results/Evaluation

Having a diverse team of academics proved invaluable when engaging in innovative projects. We discovered that combining our resources and expertise greatly enhanced our teaching methods, and we recognised that interprofessional collaboration also heightens professional networking opportunities.

### Discussion

Embracing technology enhanced learning not only promotes opportunity for interprofessional collaboration, digital leadership, networking and mentoring but also facilitates student critical thinking and e-literacy development. It is crucial to explore ways in which technology enhanced learning can be embedded into curricula to upskill nursing and midwifery students, enabling them to become digital champions in their future practice. Further research is needed to evaluate innovative integration of Generative AI in other health related academic programs.

## Using industry technology to enhance student learning experience for Sport and Exercise Science students

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### **Introduction/Background**

The use of digital health tools is increasing however there is a lack of evidence to support their use in practice (Keel et al., 2023), and even less evidence to highlight the tools' potential in higher education settings. Professional accreditation standards, require sport and exercise science (SES) students to “critically analyse technology and apply appropriate digital practices” (ESSA, 2020). To date, there is no literature exploring the use of “TeamBuildr” software with iPads to prescribe and deliver exercise sessions for clients by students enrolled in a SES course. Therefore, the aim of the current study was to explore the use of industry technology for exercise prescription and subsequent exercise delivery by SES students.

### **Methods**

Students who were enrolled in an exercise prescription and delivery subject were invited to complete an online Qualtrics survey which included open-ended questions surrounding previous use of the industry-based technology, the benefits, and barriers of using the technology, and if the students perceived the technology prepared themselves for working in the industry. Open-ended responses were thematically analysed using a reflexive thematic analysis.

### **Results/Evaluation**

The participants (response rate: 16%) found the use of industry technology to be beneficial to their experience in the subject as the industry technology was ‘user-friendly’, and ‘relevant to their future careers’. The main barrier was the app not updating live as it does in the web version of the software. All participants agreed that the use of industry technology in class has prepared them for future employment e.g. “As most clinics apply the use of technology delivered programs over hardcopies or soon will in the future, iPad/technology literacy is a must.”

### **Discussion**

While the response rate for the survey was low, the results are promising for the inclusion of industry technology for student learning experience and for workplace preparedness.

### **References**

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# Analysing Global Engagement with Medical Education Content on YouTube

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## Introduction/Background

This study analyses the viewing patterns of a popular medical education-based YouTube channel 'Dr. Matt & Dr. Mike' (<https://www.youtube.com/@DrMattDrMike>) to understand audience engagement and global impact.

## Methods

The YouTube analytics of the 'Dr. Matt & Dr. Mike' channel were analysed over a five-year period (January 31, 2019 - January 31, 2024). This included demographic and viewership data analysis, anonymous surveys, and the utilisation of linear regression models to investigate the potential impact of the COVID-19 pandemic on viewership trends.

## Results/Evaluation

Over the last five years, the channel uploaded 529 unique videos related to anatomy, physiology, pathophysiology, and pharmacology topics, with an average length of 10m26s. The top 500 videos received over 45 million views and accumulated a watching time of nearly 3 million hours. Access to the content was mostly via mobile phones (57.1%) and computers (35.2%), and the majority of viewers were in the 18- 24 age group (39.42%). The educational videos reached audiences in 179 out of 193 UN member states and were integrated into the learning systems of 271 educational institutions globally, accumulating over 456,000 views. Furthermore, they garnered over 3.3 million views from learners in 39 of the 45 least developed countries.

An interesting finding was the impact of the COVID-19 pandemic on views and subscribers, where a 2.5-fold increase in views was observed during the post pandemic period. This trend was observed consistently across the top 5 countries by views, implying that globally, the pandemic influenced shifts in viewership on the channel.

## Discussion

YouTube videos are valuable resources for medical education, attracting diverse audiences and significantly influencing learners worldwide. These findings underscore the importance of online platforms in facilitating access to quality medical education, particularly during times of global health crises, and for those in resource limited settings.

# Exploring methods and educational outcomes of online asynchronous tertiary education for postgraduate allied health professionals: a scoping review

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<sup>1</sup>*Flinders University*

## Introduction

The number of students enrolled in postgraduate coursework health degrees in Australia has been steadily increasing and the majority of these students elect to study part time and externally (Department of Education, 2023). Research has reported that allied health professionals engaging in post-graduate study appreciate the flexibility afforded by online learning but remain concerned about their ability to participate due to personal commitments, potentially due to their existing work demands (Forde & Callagher, 2020). Asynchronous online learning, where learning may occur at any time or place convenient to the student allows for further flexibility, offering greater student-centred education. However, there is a lack of guidance on how to best deliver postgraduate health professional education within an asynchronous online environment.

This scoping review, being conducted in March 2024, aims to map key characteristics of research investigating online, asynchronous tertiary education for postgraduate allied healthcare professionals in order to inform teaching and learning practice.

## Methods

CINAHL, ERIC, Scopus and PubMed databases will be searched for relevant research articles available in English and published since 2014. All articles will be screened by two reviewers for eligibility, then data will be extracted from included articles and a descriptive analysis undertaken.

## Results

This scoping review will identify key concepts in asynchronous postgraduate allied health education, synthesise the reported characteristics of research in this field and describe the learning and assessment activities and educational outcomes reported.

## Discussion

The findings of this scoping review will inform the delivery of online asynchronous tertiary education for postgraduate allied health professionals, providing guidance to educators on learning activities and assessment methodologies. This study will also identify gaps within the current knowledge base, providing avenues for further research.

## References

- Department of Education (2023). *2022 Student Enrolments (D23/4870158)*. Australian Government, Department of Education.
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<https://doi.org/10.24059/olj.v24i1.1566>

## TikTok it's time to catch up with Gen Z

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### Introduction

Social media platforms, such as TikTok, are increasingly used by adolescents<sup>1</sup> and hold the potential to provide accessible health education, improve health literacy and positively influence lifestyle choices<sup>2</sup>.

Health students volunteered to participate in the creation of short videos focusing on common adolescent health issues. Videos are released to the social media platform TikTok through the University of Melbourne health channel @unimelb\_health.

The aim of our project is to identify skills developed and challenges encountered by students creating social media based educational health videos.

### Method

A mixed methods design using online surveys (n=20) and semi-structured interviews (n=5) to explore the experience of health student participants involved in the creation of the multimedia content. Questions were informed by behaviourism and collaborative learning theories. Descriptive statistics and thematic analysis were used to review the data.

### Results

43 students were approached, with 20 completed surveys. 69% of students were medical, 15% biomedical, 16% comprised other health professions. Third year student participants were highest (33%).

A higher proportion of individuals (25-29 years vs. 18-24 years) felt their communication skills had improved (100% vs. 64%) independent of year level.

Two major themes were identified: video development, and teamwork. Participants recognise skills in both themes were considered translatable to the clinical setting.

Student data identified key elements for successful videos included appropriate content selection, clear language, and capturing viewer attention.

### Discussion

Design and creation of engaging health videos for adolescents requires a specific skill set. These skills are important given the increasing use of online social media platforms and associated opportunity for health messaging in adolescent populations. Creating health videos in teams also provides opportunities to improve skills such as communication, leadership and teamwork, which can be later applied in the clinical setting.

The adolescent experience in understanding digital health information will furthermore be evaluated.

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2. Comp G, Dyer S, Gottlieb M. Is TikTok The Next Social Media Frontier for Medicine? AEM Education and Training. 2021;5(3).

## Evaluating Student and Teacher Perspectives on Peer-Led Mock OSCE: Using Medical Students to contribute to undergraduate OSCE development.

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<sup>1</sup>*King's College London*

### **Introduction**

Objective Structured Clinical Examinations (OSCEs) are vital for assessing clinical competency in medical education. Peer-led teaching has gained prominence as an effective approach. This study examines how a three-month OSCE program with a mock OSCE impacts 3rd year medical students and explores the views of 4th and 5th year medical student educators on skill enhancement.

### **Objective**

This study aims to understand student perceptions of the OSCE program, including the mock OSCE, and evaluate its effect on the skill development of 4th and 5th year medical student educators.

### **Methods**

A structured three-month OSCE program involved 3rd year students in weekly sessions led by 4th and 5th year student educators. It culminated in a one-day mock OSCE for 80 students. Questionnaires captured student opinions on the program and mock OSCE. Simultaneously, 4th and 5th year medical student educators' insights were collected. Data underwent quantitative and qualitative analysis.

### **Results**

Among 80 students, 64 responded (response rate: 80%). Most students found the program boosted confidence (78.1%), used effective resources (75%), was well-organized (73.4%), and aligned with their learning needs (71.9%). Educators reported improved teaching abilities (90%) and sharing of clinical insights (80%). Of the students providing OSCE grades (n=33), all scored 66% or higher.

### **Conclusions**

The study highlights the success of the OSCE program and mock OSCE in positively impacting 3rd year students. The program improved clinical skills and readiness for final exams. Involvement of 4th and 5th year medical student educators demonstrated effective guidance. Peer-led education benefits students and educators alike. Ongoing analysis will illuminate educators' contributions and perspectives.

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## Unleashing Potential: a Unique Peer Teaching Program and Online Foundational Knowledge Course Supports Improved Assessment Outcomes in a Diverse Graduate Medical Cohort

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### **Introduction/background:**

The University of Sydney MD program accepts students from diverse academic and cultural backgrounds, including non-science (NSB), international students, Indigenous and rural students, and English as a second language. Many students struggle with basic and clinical as evidenced by assessment outcomes. We explored the educational impact of a unique structured peer teaching program (Basic Science Bridging; BSB) and an Online Foundational Knowledge Course (OFC) designed to support student diversity in transitioning into a graduate MD program

### **Methods**

The OFC design used transition and learning outcomes in core disciplines of molecular and cellular biology, physiology and anatomy, including “how to learn” resources. Engagement with OFC modules were coded on a 4-point ordinal scale and correlational analysis and analysis of Variance (ANOVA) tests were conducted for each OFC module across average assessment type scores to identify differences between groups. Engagement with BSBs was determined by student attendance which was correlated with year 1 Assessment outcomes.

### **Results/Evaluation:**

Significant positive correlations were found between engagement with each OFC module and average scores for Biology and Physiology assessments. Full engagement with the Biology module significantly improved written assessments and anatomy tests, improving scores by an average of 5.27% and 5.91% respectively. A direct positive correlation was found between BSB attendance and assessment outcomes in year 1.

### **Discussion:**

Evidence of improved assessment outcomes in a diverse student cohort demonstrated that the unique peer mentoring tutorials and transitional OFC assisted with academic disadvantage. The diagnostic and prognostic value of the OFC and BSBs via assessment results in a longitudinal study is being conducted.

## Appreciating the bigger picture in medical imaging: Using transfer of learning to examine new graduates' feelings of preparedness and ability

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### Introduction

Junior doctors may be required to interpret medical imaging and yet they report feeling unprepared to carry out medical imaging tasks.<sup>1</sup> Medical school education is designed to prepare junior doctors for clinical life, however, the ability to transfer medical imaging skills is influenced by conditions in the workplace. To better understand how junior doctors draw on their formal education and navigate the workplace, this study examined junior doctor's feelings of preparedness and ability to practice medical imaging.

### Methods

An interpretive perspective framed this questionnaire-based study involving 35 first-year doctors. 'Transfer of learning'<sup>2</sup> was used to design items with Likert-like rating scales and prompts for written responses about formal education and workplace learning. Descriptive statistics and content analysis were used to summarise ratings and identify common themes in the written data, respectively.

### Results

Thirty one percent of participants reported feeling moderately or less prepared to carry out radiology tasks. Areas for further support identified were practical skills such as how to request and interpret imaging studies. Participants were reported feeling more confident in carrying out non-radiology tasks compared to medical imaging tasks. Workplace factors influencing participants' ability carry out medical imaging-related tasks involved collegial support, the physical environment, and information technology systems.

### Discussion

Equipping junior doctors with the knowledge and skills necessary to carry out medical imaging tasks does not end at graduation from medical school. Social and physical features in the workplace influenced transfer of learning, variably. Collegial support enabled junior doctors to perform medical imaging tasks confidently, whereas, when absent, they felt anxious. Junior doctors may feel more prepared to practice if the medical imaging curriculum they experience is targeted to skills they encounter in the workplace and kept abreast of technological advances. This could be achieved by collaboration between educators and employers.

### References

1. Glenn-Cox S, Hird K, Sweetman G, Furness E. Radiology teaching for interns: Experiences, current practice and suggestions for improvement. *J Med Imaging Radiat Oncol* [Internet]. 2019 [cited 2023 Dec 16]; 63(4). Available from: <https://doi.org/10.1111/1754-9485.12896>
2. Baldwin TT, Ford KK. Transfer of training: A review and directions for future research. *Pers Psychol*. 1988;41(1):63-105.

# Embedding art in health professions education: Visual Thinking Strategies (VTS) to enhance observational skills & engagement when teaching histology

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## Introduction/Background

Histology is a visually challenging subject for novice students. However, in combination with anatomy, it is foundational to medical and biomedical education. Given its highly visual nature, the aim of this study was to trial a pedagogical approach which has been demonstrated to improve observation skills in classroom settings, including in medical programmes (Cerqueira et al., 2023). Visual Thinking Strategies (VTS) involves the viewing and discussion of art, and we hypothesised that the same visual and problem-solving skills involved in interpreting artwork could be applied to students' exploration of digital histology images.

## Methods

We embedded a VTS activity into histology practical classes (six 3h classes across 2 weeks; ~50-60 students/class) in a 3<sup>rd</sup>-year general endocrinology course (2021-2023). An experienced facilitator guided students through a ~20-minute session exploring a never-before-seen artwork. We assessed the impact of VTS on students' observational skills, perceptions of histology, and practical report marks. Student descriptions of histology images viewed pre- and post-intervention were scored for observational richness and compared. Responses to open-ended, reflective questions about the activity were analysed by inductive thematic analysis (Braun & Clarke, 2006). Report marks were compared with those from a previous year. Analyses considered student demographics and potentially influential hobbies.

## Results/Evaluation

While there was no significant effect of VTS on scores for observational richness or practical report marks, >50% of students felt that VTS changed how they viewed histological images and improved their observational skills. Others clearly expressed their belief that art and histology were not interchangeable due to art being subjective and histology having 'right' answers, while ~15% of students had mixed views.

## Discussion

Findings from this study suggest that this "outside the box" approach can assist students to feel more prepared for the ambiguities and visual details inherent in the study of histological images.

## References

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Cerqueira, A. R., Alves, A. S., Monteiro-Soares, M., Hailey, D., Loureiro, D., & Baptista, S. (2023). Visual Thinking Strategies in medical education: a systematic review. *BMC Medical Education*, 23, 536-549. <https://doi.org/10.1186/s12909-023-04470-3>.

## Use of case-based tutorials to improve clinical examination and clinical reasoning in medical school education

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### **Introduction/Background**

The development of good clinical examination and clinical reasoning skills is crucial in a medical student's education, particularly during patient-focused clinical years. This study introduced and evaluated the Clinical Skills Program (CSP), a novel case-based education program for medical students commencing clinical placements designed to teach clinical examination and reasoning skills in a supervised and supported environment. We aimed to compare the efficacy of the CSP in enhancing clinical examination and reasoning skills with traditional teaching methods.

### **Methods**

Medical students were asked to complete a cross-sectional survey at the conclusion of their first clinical-placement year. Four learning modalities (CSP, Bedside Tutorials, Case-Based Interactive Lectures, Formal Lecture Program) were rated through 17 various knowledge- and confidence- based outcomes using a Likert scale.

### **Results/Evaluation**

43 responses were received, of which 21 students (21/43, 48.9%) had participated in the CSP. Students perceived the CSP as having the second highest learning modality effectiveness, only exceeded by bedside tutorials. The CSP (mean score 4.63) was superior to Case-Based Interactive Lectures (3.07) and Formal Lecture Program (2.99) and similar to bedside tutorials in teaching key clinical skills: particularly clinical reasoning and differential diagnoses, history taking, clinical examination, investigations and management. Out of the four teaching strategies assessed, the CSP was rated to be most effective in improving student confidence in clinical skills and assessments.

### **Discussion**

Our data suggests that the CSP can improve medical students' confidence and competency with clinical examination and reasoning skills. Integrating innovative educational approaches such as the CSP with legacy educational modalities may optimise teaching for medical education institutions and broaden pedagogical approaches of teaching clinical skills to future clinicians.

## Transforming Clinical Skills Training: Integrating OSCE into Team-Based Learning for teaching undergraduate medical students

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### **Introduction:**

Clinical skills are an indispensable part of health professionals practice ensuring patient safety<sup>1</sup>. Traditionally, it is taught through simulations and real patients using various approaches in the undergraduate medical curriculum. Team Based Learning (TBL) approach has been used to develop problem solving, critical thinking, team work skills among students<sup>2</sup>. We adapted TBL by using OSCEs in iRAT and tRAT format along with feedback from the peers as well as the facilitators for teaching clinical skills and then evaluated its impact on learning.

### **Methodology:**

This was a Quasi experimental study with cross over design carried out at HITEC-IMS Taxila, Pakistan. The clinical students from medicine were assigned into two group. The control group underwent traditional skills training while experimental group underwent an adapted TBL learning experience with OSCEs implemented in iRAT and tRAT during clinical skills teaching. Pre and post-OSCEs were conducted and inferential statistics were calculated.

### **Results:**

A statistically significant improvement was noted in mean post-test scores of Experimental and Control group on both OSCE stations. There was no significant difference in the mean pre-test scores of both groups.

### **Conclusions:**

This study evaluates an adapted Team-Based Learning (TBL) approach for teaching clinical skills to undergraduate medical students in a learner-centered and engaging manner. We found the approach useful in clinical skills training of undergraduate medical students.

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2. Currey J, Oldland E, Considine J, Glanville D, Story I. Evaluation of postgraduate critical care nursing students' attitudes to, and engagement with, Team-Based Learning: A descriptive study. *Intensive Crit Care Nurs.* 2015 Feb 1;31(1):19–28.

## Juggling teaching and research - international supervision of physiotherapy students engaged in research

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### Introduction/Background

Physiotherapy programs may require students to conduct research to meet course completion requirements. To support development of authentic research capabilities, research projects are often situated in clinical settings, with a research publication a desirable outcome. Faculty members are tasked with finding innovative approaches to develop research opportunities for students, while simultaneously providing supervision to ensure students adhere to ethical research standards. This study aims to engage multiple rounds of students in the collection and analysis of 400 therapy sessions recording activity types and rating balance exercise intensity.

### Methods

Naturalistic observation study of physiotherapists working with people with balance impairments in five clinical sites in Maine (n=3) and Texas (n=2). Before data collection, students train in data collection procedures and conduct one observation session in the clinical setting with feedback on performance, and rate 12 video performances: 6 using the Balance Intensity Scale<sup>1</sup> and 6 to classify therapy activity type. Videos are shown on two occasions no less than 2-weeks apart to assess reliability and agreement.

### Results/Evaluation

Three cohorts of students in Maine (n=15) and two in Texas (n=15) have been trained in data collection procedures by the academic team in the USA and Australia. To date, students have completed 50 therapy session observations. Reliability and agreement of student ratings after training has improved with successive cohorts with the addition of applied skills sessions emphasising skill development using feedback dialogue. Data collection is ongoing.

### Discussion

This study is an opportunity to investigate the role of research participation in the overall skill development of physiotherapy students. This study is exploring strategies that are beneficial for both students and supervising faculty members. In particular we continue to explore the educational impact of integrating students into segments of a large international project, and employing video-based and in-field data collection skills practice with feedback.

### References

1. Farlie, M. K., Keating, J. L., Molloy, et al. (2019). Physical Therapy, 99(10), 1394-1404. <https://doi.org/10.1093/ptj/pzz092/5531450>

## “Teaching Telehealth for Tomorrow”

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### Introduction/Background

To compensate for reduced clinical placements during the COVID pandemic, we piloted a series of simulations to teach telehealth skills to final year medical students. Encouraged by initial feedback, we sought to enhance and formally evaluate the program in 2022-23.

### Methods

Following an online introductory lecture, a suite of five surgically themed telehealth scenarios were conducted via Zoom to successive cohorts of final year students in Surgery and Rural General Practice rotations. Multisource feedback was provided by faculty members comprising a health consumer (simulated patient), a nurse, a surgeon, and a Performing Arts academic.

Quantitative evaluation was by pre- and post-knowledge/attitudes/perceptions surveys with learning achievement assessed across 8 domains using Likert scales.

Qualitative evaluation involved thematic analysis of semi-structured interviews with former students and clinical academic supervisors.

### Results/Evaluation

Over the 2-year period, 143 students undertook the program. Survey response rate was 30%. All nominated telehealth learning domains showed significant improvements in self-reported proficiency, this being most marked for history-taking and medicolegal compliance, and least for eliciting physical signs, arranging investigations, and management.

Key themes emerging from interviews and free-text survey questions were new skills acquisition, application of skills in professional life, and the value of multisource feedback.

### Discussion

Even after the restrictions of the COVID-19 pandemic, telehealth is set to become an essential part of a blended care model that increases accessibility for vulnerable and remote patients [1]. It must therefore be in the skill set of medical graduates, yet little has been done to incorporate it into undergraduate curricula thus far [2]. Through this low-cost simulation program, we have demonstrated that discipline-specific telehealth skills can be successfully taught to senior medical students and are also applicable to other aspects of professional development. The results of our evaluation will be used to inform iterative improvements to the program's delivery.

### References

1. Fisk M, Livingstone A, Pit SW. Telehealth in the Context of COVID-19: Changing Perspectives in Australia, the United Kingdom, and the United States. *J Med Internet Res*. 2020 Jun 9;22(6):e19264. doi: 10.2196/19264. PMID: 32463377; PMCID: PMC7286230.
2. Budakoglu I et al. Telemedicine curriculum in undergraduate medical education: a systematic search and review. *Health and Technology*. 2021; 11:773–781

## Development of Board Games to Teach Pre-Clinical Sciences in Medicine First Year

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### Introduction:

Studying at Rural Medical Schools imposes challenges such as limited teaching resources/facilities in comparison with metropolitan universities. Students may rely more often on distance education (pre-recorded and online lectures) and have less face-to-face contact with their educators, which may hinder basic sciences learning and potentially affect assessment performance. Game-based learning (GBL), an innovative alternative to traditional didactics, has the potential to yield equal or better grades, usually promoting *better* attitudes about learning (Pitt et al 2015).

We aim to develop and implement GBL sessions to facilitate revision of crucial pre-clinical aspects pertaining relevant medical conditions, integrating pathophysiology, immunology, microbiology, and pharmacology.

### Methods:

We will design original (and/or repurpose existing) tabletop board games, pedagogically grounded to provide students with the opportunity to interactively revise scientific information assessed in Year 1 of the Doctor of Medicine (MD) program delivered at a rural university (Dubbo, NSW). We plan to facilitate at least one optional GBL revision session in each one of the eight Y1 teaching blocks (Foundational, Musculoskeletal, Respiratory, Cardiovascular, Renal, Endocrinology, Gastroenterology, and Neurology).

### Results:

We will seek ethic approval to investigate the effectiveness of our GBL sessions using mixed methods. We will compare pre- vs post-game knowledge tests to assess short-term retention; and compare participant vs non-participant student grades, and grade distributions of present and previous cohorts to evaluate long-term retention. We will use Likert scales and student feedback surveys to evaluate the motivational aspect of GBL sessions.

### Discussion:

Students will be offered opportunities to provide feedback to improve/co-design games, representing a unique opportunity for active learning and developing skills which may be transferable to clinical practice, for example when educating patients. Future MD Year 1 students will be able to use these resources to safely consolidate their learning with their peers, fostering life-long learning in a face-to-face environment.

Reference: Pitt, M. B., Borman-Shoap, E. C., & Eppich, W. J. (2015). Twelve tips for maximizing the effectiveness of game-based learning. *Medical teacher*, 37(11), 1013-1017.

## Advancing Paediatric Simulation in Medical Education: A pilot project evaluating the impact of a simulation program to teach low-frequency, high-impact clinical scenarios to Third-Year Medical Students during the paediatric clerkship.

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### Background

The University of Western Australia's (UWA) medical students complete an eight week paediatric clerkship in the penultimate year of the course. Due to an increase in student numbers and competition for clinical placements, students often have limited exposure to rare but critical paediatric cases in clinical settings. Simulation-based education has emerged as a pivotal tool in medical training, offering a safe and controlled environment for learners to practice and refine their clinical skills<sup>1</sup>. In the context of paediatric clinical scenarios, particularly low-frequency, high-impact situations, simulation plays a crucial role in preparing students for future practice. A simulation program was designed for paediatric students, focusing on scenarios that are infrequent but carry substantial clinical significance.

### Methods

A pilot study of n=31 students using a 5 point Likert scale ranging from strongly agree (SA) to strongly disagree (SD), evaluated students' perceptions of: educational enhancement, relevance to clinical practice, interactivity, pitch level and presentation.

### Summary of Results

Results from participant's reported positive improvement in clinical knowledge and skills, enhanced decision-making abilities, and relevance to clinical practice. Overall, results suggest the simulation workshop was well-received by participants, with positive perceptions in educational value, relevance to clinical practice, appropriate pitch level, interactivity, and presentation quality. These findings support the effectiveness of simulation-based learning to teach high-impact, low-frequency clinical scenarios to students during their paediatric clerkship.

### Discussion

The immersive nature of simulation allows students to bridge the gap between theoretical knowledge and practical application, fostering a deeper understanding of paediatric emergencies and complex interpersonal communication skills. Further development of the simulation program to include more clinically relevant realistic scenarios, integration of current medical knowledge, the use of advanced technology, with emphasis on critical thinking, clinical decision-making, in a controlled, risk-free environment has the potential to equip future interns with essential skills, confidence, and improve patient safety.

### References

1. Amorim PG, Morcillo AM, Fraga AMA, Brandão MB, Belluomini F, et al. (2018) Realistic Simulation in Pediatric Emergency: Evaluation of Strategy as a Teaching Tool for Medical Students Arch Emerg Med Crit Care 3(1): 1036.

### Research ethics experience and knowledge of supervisors of medical student research projects.

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#### **Introduction**

In medical education, research education fosters evidence-based practice and promoting development of future clinician researchers. Acquiring research ethics approval is a prerequisite for conducting high-quality, publishable research. The University of Sydney medical program runs a large-scale medical student research program (~300 students/year). Most medical students are research novices, requiring guidance of experienced research supervisors. Our goal is to develop support resources for our supervisors, starting with assessment of their human ethics experience and knowledge.

#### **Methods**

Supervisors of medical student research projects (n=298) were invited to complete an online survey to determine their training, experience, and knowledge of human research ethics (n=63, response rate 21%).

#### **Results**

The participants were staff or affiliates of the University, including scientists, clinicians, or public health professionals. They were evenly distributed across gender and career stage. Nearly half the participants had a medical degree (41%) and post-graduate fellowships (43%). Most participants had a doctorate (79%). Respondents had experience with research involving humans (95%), most for >5 years (73%), primarily in research related to health and medicine (92%). Most had read national research ethics guidelines and attended human ethics training (81-89%) while some acted as Human Research Ethics Committee reviewers (32%). Human research ethics knowledge questions were answered variably (correct %); regarding use of patient information (82%), consent requirements (42%), recruitment considerations (38%), privacy provisions (86%) and mitigation of risks (66%). Most participants reported they did not need further training (73%).

#### **Discussion**

Whilst the research supervisor pool were mostly experienced academics and clinicians who had undertaken human research ethics training, there were deficits in detailed human research ethics knowledge across a range of topics and reluctance for engaging in further training. Exploring effective strategies for enhancing research ethics knowledge among supervisors is imperative to enhance the safety and quality of research conducted by students.

## Cultivating faculty: Early career educators' journey towards excellence

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### **Introduction/Background**

Early career educators, following transition from professional practice, must develop skills and practice to become autonomous in content development and delivery, as they build confidence in supporting and assessing students' skills.

The 'Keys to Teaching Excellence' model is one outcome of Claire's doctoral research (Goode, 2021), investigating the stories of Tertiary Teaching Excellence awardees, including their trajectories and professional practice. The study identified five over-arching keys to teaching excellence, each made up of characteristics inherent in a teacher's personality, and skills which can be developed through practice and reflection.

Our research seeks to build on this by investigating how a teaching excellence model impacts on early-career teachers' practice and on their identity as a teacher.

### **Methods**

Using a qualitative method, a minimum of three focus groups will be conducted including early career educators (with 3-5 years' experience) across three tertiary institutions. Following discussion of the 'Keys to Teaching Excellence' model, participants will reflect and apply this to their own teaching.

Questions will aim to elicit participants' perceptions of their journey toward excellence, using the 'Keys to Teaching Excellence' as a broad framework.

Focus groups will be recorded and transcripts thematically analysed.

### **Results/Evaluation**

This presentation will report on our initial findings, identifying themes and subthemes related to the development of excellence in tertiary educators. The study will illustrate the applicability of the Teaching Excellence model to early career educators, identify the skills and knowledge achieved and their vision for future development, and the perceived benefits of excellence in teaching to the students they work with.

### **Discussion**

We will reflect on the initial findings to describe the journey and identify critical moments (Pennycook, 2004) in the development of excellence in health professional educators.

### **References**

- Goode, C. (2021). *An excellent adventure: Investigating the stories of Tertiary Teaching Excellence awardees* [Doctoral thesis, Otago Polytechnic]. <https://hdl.handle.net/10652/5480>
- Pennycook, A. (2004). *Critical moments in a TESOL praxicum*. In B. Norton & K. Toohey (Eds.), *Critical Pedagogies and Language Learning* (pp. 327–345). Cambridge University Press. <https://doi.org/10.1017/CBO9781139524834.017>

## Developing healthcare educators: a pathway to advance practice

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### **Introduction/Background**

Position descriptions and career pathways among healthcare educators and clinical support staff vary, as does the knowledge, skills and attributes people acquire and develop during their tenure. When canvassing development pathways and opportunities for staff within our health service education department, we noticed a lack of documented, interprofessional frameworks that were adaptable to different levels of experience among the staff.

### **Methods**

Drawing from key publications including the WHO's Nurse Educator Core Competencies<sup>a</sup> the project team collaborated to document the knowledge, skills, and attributes (KSA's) essential for healthcare education staff across four proficiency levels, ranging from foundational to advanced. These KSA's were subsequently aligned with Sidhu et al's competency domains of educators in medical, nursing, and health sciences education<sup>b</sup>. The resulting matrix was tested with several education staff and underwent revisions based on their feedback.

### **Results/Evaluation**

The matrix delineates the KSA's required within each domain along a continuum of advancing practice. This matrix serves as a foundational tool for defining roles and responsibilities, structuring activities for training and development, facilitating self-assessment, conducting performance reviews, guiding career development, and promoting education as a specialised area within healthcare.

### **Discussion**

This matrix may be a valuable resource within healthcare education teams, departments, and organisations. Further work is planned to develop a self-assessment tool and map recommendations of educational content and opportunities for professional development aligned to each domain and level. In addition, we plan to incorporate the matrix into healthcare educators' performance reviews and position descriptions. The education matrix aims to provide transparency of expectations corresponding with scope of role and responsibilities, and clear pathways for development and progression; with the ultimate aim to support an evolving, thriving and collaborative healthcare education team.

### **References**

<sup>a</sup> World Health Organization. (2016). Nurse educator core competencies.

<sup>b</sup> Sidhu, N. S., Allen, K. J., Civil, N., Johnstone, C. S., Wong, M., Taylor, J. A., ... & Hennessy, M. (2023). Competency domains of educators in medical, nursing, and health sciences education: An integrative review. *Medical Teacher*, 45(2), 219-228.

## The CompassionEd community of practice: An innovation to amplify and connect lone voices in health professions education

**Reddy - on behalf of CompassionEd V**<sup>1</sup>, Greentree C<sup>2</sup>, McIlwain G<sup>3</sup>

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### Introduction/Background

Compassion, a concerned response to another's suffering combined with a motivation to alleviate that suffering, is a core competency signifying quality clinical care [1, 2]. For health professionals, compassion is a graduate attribute that underpins ethical practice, and is associated with workplace well-being, job satisfaction, and lower rates of burnout and attrition [1, 2]. Despite these proven benefits, compassion is not universally regarded as a skill or quality that can be learnt and assessed in health professions education, and there is no representative body for health professions educators invested in compassion. Consequently, most are disconnected from each other and lone voices at their institutions.

At ANZAHPE2023, we sought to address this need. This presentation shares our year-long journey.

### Methods

We initiated "CompassionEd", a community of practice comprising researchers, practitioners and educators committed to embedding compassion in health professions education and training. The goal was to provide support and agency. The experiences of CompassionEd members, methods for fostering group connection, and the range of activities and collaborations that have already resulted in this nascent community, will be presented.

### Results

From a core of three at ANZAHPE2023, there are now 28 members of CompassionEd. Members have diverse experiences, skill sets and professions. We will summarise the joys, learnings, and challenges of instigating a geographically-dispersed community of practice, across health professions, universities, and non-government and private sectors, and share the vision and mission we have forged together.

### Discussion

Compassion is integral to health professions education; yet, largely absent from the most health professions curricula. CompassionEd enables members to share their experiences and thoughts on how to increase interest in the teaching of compassion in health professions education. Within a short time, CompassionEd has proven to be vibrant community of practice, much-needed and welcomed by its members on behalf of the future health professionals we serve.

### References

- [1] Patel et al, "Curricula for empathy and compassion training in medical education: A systematic review", *PLOS ONE*, 2019
- [2] Sinclair et al, "What Is the State of Compassion Education? A Systematic Review of Compassion Training in Health Care", *Acad Med*, 2021

## Nursing and midwifery educator's planetary health knowledge, views, confidence and teaching practices

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### Introduction/Background

As the largest healthcare workforce, nurses and midwives require a deep understanding of planetary health to address current and future global health challenges. However, existing research highlights potential lack of knowledge, skills and confidence among health professions educators in effectively teaching planetary health (Brand et al., 2021). This study investigates the current planetary health knowledge, perspectives, confidence, and teaching practices of nursing and midwifery educators in Australia and New Zealand.

### Methods

An online cross-sectional survey was sent to Australian and New Zealand nursing and midwifery educators across the 45 Schools of Nursing and Midwifery between July and September 2023. The online survey consisted of 29 open- and closed-ended questions about nursing and midwifery educators' planetary health knowledge, views, confidence and teaching practices.

### Results/Evaluation

A total of 127 participants responded to the first open-ended question. Thereafter, 97 participants proceeded to complete the rest of the survey questions. The data suggests that while nursing and midwifery educators held mostly positive views about integrating planetary health into their teaching, they lacked the knowledge and/or confidence to do so effectively.

### Discussion

Our results align with prior research indicating that many health professions educators have limited knowledge and confidence to teach planetary health (Brand et al., 2021). While our study reveals overwhelmingly positive attitudes of nursing and midwifery educators towards integrating planetary health into their teaching, there is a recognized gap in knowledge and confidence, attributed to the complexity of the subject and the recent availability of frameworks for guidance. To address this, the focus should be on formulating a professional development strategy for nursing and midwifery educators, enabling them to incorporate a planetary health perspective into their current and future teaching practices.

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Brand, G., Collins, J., Bedi, G., Bonnamy, J., Barbour, L., Ilangakoon, C., Wotherspoon, R., Simmons, M., Kim, M., & Schwerdtle, P. N. (2021). "I teach it because it is the biggest threat to health": Integrating sustainable healthcare into health professions education. *Medical Teacher*, 43(3), 325-333.

## A novel approach to e-learning for pharmacology in medical school

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### Introduction

Pharmacology in medical degrees is content-heavy. Active learning approaches reduce learner dissatisfaction and disengagement. One possible example is e-learning, however, as highlighted through a recent scoping review, there is paucity of literature related to e-learning for pharmacology for medical students. Further, medical graduates report being ill-prepared to prescribe; it is therefore important for medical schools to consider how this need can be met. This study describes a novel approach to interactive e-learning for pharmacology aiming to better equip graduates with pharmacology knowledge and safe prescribing principles.

### Methods

A pharmacology e-learning series was developed in 2023, as part of the MD re-design at University of Melbourne (UoM). The goal was to provide a comprehensive, longitudinal, scaffolded interactive e-learning approach to pharmacology learning across the three clinical years. A pre-defined list of “core” medications was introduced through case-based scenarios developed by a single lead senior medical clinician and academic, in close consultation with a pharmacist, medical subject content experts and students of diverse backgrounds to ensure that cases reflected real-life scenarios whilst avoiding stereotyping. Content was presented by a learning designer using principles such as the use of colour and intuitive images to transform heavy content into learner-friendly modules. Safe prescribing principles were highlighted, and all content was mapped.

### Evaluation

Students reported a high level of satisfaction. Particularly useful aspects were the incorporation of medications into realistic management scenarios, the interactive nature, and opportunities to check knowledge. Comments included “this is the most effective way I have learnt about medications so far” and “I enjoyed learning pharmacology in this clinical context”. The diversity was appreciated. Suggestions for improvement included incorporating summary slides.

### Discussion

We aimed to present a novel approach to e-learning for pharmacology for medical students. Preliminary feedback suggests that this was well-received by students and could be considered in pharmacology teaching and learning.

### References

Ellaway R and Masters K. AMEE Guide 32: e-Learning in medical education Part 1: Learning, teaching and assessment. *Medical Teacher* 2008; 30(5): 455-473.

Shi W, Qin H, Vaughan B, Ng L. Educational Interventions for Medical Students to Improve Pharmacological Knowledge and Prescribing Skills: a Scoping Review. *Perspectives on Medical Education* 2023; 12(1): 348-360.

## A survey of recent medical graduates on residency employment criteria in Victoria, Australia.

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<sup>1</sup>*University Of Melbourne*

### **PURPOSE**

As medical schools transition towards ungraded degrees, due to benefits seen in student wellbeing and mental health, there are changes in the way residency positions are selected. As some students graduate without a grade point average, this survey aims to give a student voice to selection criteria for internship jobs.

### **METHODS**

A voluntary anonymous online survey was delivered to doctors within two years of graduating medical school in Victoria, Australia. The survey asked these doctors to rank common selection criteria, preference for group or individual interview, preference for point-based or non-point-based CVs and preference for a random allocation or application based internship system.

### **RESULTS**

131 recent graduates completed the survey. The highest ranked selection criteria were interviews, references and situational judgement questions. The lowest ranked were training university and research publications. There were strong preferences for individual interviews and non-points based CVs. There was a weak preference for random allocation internship placement. Free text comments from recent graduates followed themes of selection on personal attributes and interpersonal skills, rather than academic achievement or university.

### **CONCLUSION**

Respondents preferred to be selected based on personal attributes and references from their education years. This may reflect that students perceive strong growth and development through their degrees which reflect a different person from who entered the medical degree. It is important to consider these points when internship selection panels meet to employ new medical graduates.

## The evolution of identifying anticipated learning needs in an evolving “at home” allied health workforce

**Paramasivan M**<sup>1</sup>, Roberts M<sup>1</sup>, Whelan L<sup>1</sup>

<sup>1</sup>*Monash Health*

### **Introduction/Background**

The ‘Monash at Home’ program was initially developed to provide multidisciplinary, at-home care to patients admitted under the Geriatric Evaluation and Management (GEM) bed card. In line with an organisational shift to orientate care towards the community, the program planned to expand its admitting criteria to also including patients under a “Rehabilitation” bed card, including but not limited to, stroke, neurology, and orthopaedics. With the expansion to new clinical areas, it was recognised that staff would require learning needs assessment and relevant skill development in line with new clinical service needs. This project aimed to predict anticipated admissions, relevant clinical skill requirements and consequent areas for development in allied health staff.

### **Methods**

A review of functional abilities of gerontology patients admitted into the “at home” program using the Functional Independence Measure (FIM) was analysed against inpatients in bed-based subacute wards. This data was used to help review the percentage of patients that could potentially be admitted under the “at home” program. Potential patients were then categorised by bed card and diagnosis. Learning needs of the clinical skills required to meet the needs of predicted future admissions was reviewed in all allied health professions. Predictions of anticipated skills requirements and self-report learning needs were used as the foundation to guide appropriate resource development, upskilling and credentialing in line with the expansion.

### **Results**

Evaluation post service expansion found admissions and consequent skill requirements were grossly in line with predictions. Staff learning need findings guided prioritisation of areas of skill development required and prompted the development of a clinical capability framework for the program.

### **Discussion**

Understanding the clinical skill requirements of a program should be made in consultation with clinical experts and prioritised based on service and clinician learning needs. The development of a structured clinical capability framework can support current and future staff to meet clinical service needs. Ongoing identification of learning needs should be considered.

## Enhancing medical education excellence: Exploring innovative staff development strategies for small group facilitation

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<sup>1</sup>University Of Melbourne

### Background:

The redesigned Doctor of Medicine program at the University of Melbourne continues to prioritize small group methods as a favoured pedagogical approach. Effective facilitation of small groups necessitates the use of suitable methods to foster active and purposeful participation. Responding to student and staff feedback, we introduced a series of innovative multimodal initiatives aimed at cultivating staff capabilities in small group facilitation skills within the Case Supported Learning (CSL) stream of the MD1 program.

### Method:

Employing an action research framework, this study implemented staff development initiatives in two phases during the second semester of 2023. Phase 1 included a two-week trial of peer partnering, while Phase 2 involved targeted modelling of instructional and planning approaches in CSL facilitation, incorporating discrete microlearning concepts. These concepts focused on group dynamics, lesson planning, active learning strategies, feedback, and effective questioning. The interventions took place within the allocated 30-minute briefing time preceding each CSL class and as video overview summaries ("mini-briefings") released at the beginning of each teaching week. Staff perspectives on the initiatives were assessed through questionnaires after each phase, utilizing a five-point Likert scale and free-text responses.

### Findings:

Staff (n=15) rated the peer partnering initiative as moderately useful in supporting their development of small group facilitation lesson planning in CSL, and more than half of respondents recommended its ongoing inclusion within the staff development curriculum. Interestingly, there was no difference in ratings between new staff in 2023 and more experienced staff (p=0.27). Live briefings were well attended, with 73% respondents finding microlearning offerings (especially in group dynamics, lesson planning, and feedback approaches) moderately or very useful. Video "mini-briefings" were highly valued, along with the explicit sharing of modelled facilitation approaches. Qualitative comments underscored the appreciation for diverse perspectives and ideas shared within a collegial atmosphere.

### Discussion

The perceived usefulness of a novel peer partnership approach and multimodal delivery of modelled facilitation skills in supporting small group learning provides an impetus for ongoing improvement. These initiatives offer the potential to enhance teaching effectiveness to support student-centred learning and may serve as useful exemplars for other postgraduate health programs.

### References

1. Burgess, A., van Diggele, C., Roberts, C., & Mellis, C. (2020). Facilitating small group learning in the health professions. *BMC Medical Education*, 20(S2). <https://doi.org/10.1186/s12909-020-02282-3>

## Transition to Speciality Practice (TSP) programs: an innovative pathway for experienced clinicians to enter the mental health workforce

**Wall S**<sup>1,2</sup>, Sevenhuysen S<sup>1,2</sup>

<sup>1</sup>Peninsula Health, <sup>2</sup>Monash University

### **Introduction/Background (280 words)**

Public Mental Health Systems in Victoria are facing significant workforce challenges. In late 2021, there were an estimated 500 mental health clinical staff vacancies across the state. This resulted in a highly competitive recruitment landscape forcing Area Mental Health Services to cultivate innovative programs to ensure services continued to deliver safe and effective care. Transition to Speciality Practice (TSP) programs supported experienced Health Professionals, who had developed an interest in Mental Health, to transition into this growing workforce.

### **Methods**

Government funding provided an opportunity to grow these programs which give the space and time for health professionals to develop capability across foundational competencies which contain interdisciplinary, multidisciplinary and discipline specific learning opportunities. These programs are supported by educators from Nursing, Occupational Therapy and Social Work, and are delivered over a period of 12 months.

### **Results/Evaluation**

Senior leaders within Mental Health have seen Transition to Specialty Practice (TSP) programs as providing a valuable pathway into the mental health workforce. The success of this program has facilitated its expansion, with plans to grow the program annually. The program has supported candidates to develop into capable and confident mental health clinicians. The nursing component of this program has successfully accessed credits towards a Master of Mental Health Nursing with several universities, providing the additional important link to tertiary education opportunities.

### **Discussion**

This oral presentation will discuss the elements needed to successfully implement and sustain Transition to Specialty Practice (TSP) programs and show how cultivating a structured supportive program such as this can provide a pathway for recruitment and retention in a highly competitive recruitment landscape. The discussion for this program will place particular attention on how this work could be transferred to other practice environments.

## Understanding rural nurses' experiences of paediatric professional development; a realist evaluation

**Bauer C**<sup>1,2</sup>, Gray A<sup>1,2</sup>

<sup>1</sup>The Royal Children's Hospital Melbourne, <sup>2</sup>The University of Melbourne

### **Background**

Many children in Victoria are cared for in rural hospitals where nursing staff may have limited specialised paediatric training and experience caring for children. The need to maintain such a broad skill base with limited frequency of presentations presents a unique challenge. The specialised nature of paediatric nursing further compounds this. The Royal Children's Hospital (RCH) Education Hub Outreach Program (OP) was established to help address this but there is a need to better understand the learning needs, preferences, and barriers to the professional development of rural nurses to ensure that available education activities are effective and acceptable. This study aims to explore this through the experiences of rural nurses engaging with paediatric continuing professional development.

### **Methods**

This study has a qualitative exploratory design utilising a realist evaluation approach to enhance understanding of what works and why in diverse regional learning contexts.

### **Results**

Data has been collected through semi structured interviews with nurses from a range of rural Victorian health services and will be analysed using iterative thematic analysis.

### **Discussion**

It is expected that this study will add to the body of literature related to rural continuing professional development. Findings will directly inform future OP activities by providing insights that will direct the design and delivery of targeted educational interventions to optimise impact. This is particularly critical given the limited resources available to deliver education and barriers to access that have been identified in rural health facilities. Although this study is focussed on nurses it is also expected that findings would be applicable to other health professional groups.

## Questionable' clinical activities and RACGP examination performance: is a measure of registrars' quality of clinical practice predictive of examination outcomes?

**Tran M**<sup>1</sup>, Magin P<sup>2,3</sup>, Ralston A<sup>2,3</sup>, Fielding A<sup>2,3</sup>, Holliday E<sup>2</sup>, Tapley A<sup>2,3</sup>, van Driel M<sup>4</sup>, Ball J<sup>5</sup>, Moad D<sup>2,3</sup>, Mitchell B<sup>4</sup>, Fisher K<sup>2,3</sup>, FitzGerald K<sup>6</sup>, Spike N<sup>7</sup>, Turner R<sup>8</sup>, Davey A<sup>2,3</sup>

<sup>1</sup>University Of New South Wales, <sup>2</sup>University of Newcastle, <sup>3</sup>Royal Australian College of General Practitioners, <sup>4</sup>University of Queensland, <sup>5</sup>Hunter Medical Research Institute (HMRI), Clinical Research Design and Statistical Support Unit (CReDITSS), <sup>6</sup>University of Tasmania, <sup>7</sup>University of Melbourne, <sup>8</sup>GP Synergy, NSW & ACT Research and Evaluation Unit

### Introduction/Background

Non-evidence-based and 'low value' clinical care and medical services are 'questionable' activities, being more likely to cause harm than good and whose benefit is disproportionately low (1) compared with its cost (2). We sought to establish if a measure of questionable clinical practice (the QUestionable In Training Clinical Activities Index (QUIT-CAI)) is predictive of GP registrars' (trainees') performance in RACGP Fellowship examinations (licensure examinations for independent general practice).

### Methods

The study was nested in the ReCEnT study - an ongoing cohort study in which GP registrars record details of their clinical practice. Outcome factors in analyses were individual NSW- and ACT-based registrars' scores on the three Fellowship examinations (AKT, KFP, and OSCE) and overall pass/fail, during 2012-21. Analyses used univariable and multivariable regression (linear or logistic, as appropriate). The study factor in each analysis was 'QUIT-CAI score percentage' – the percentage of times a registrar performed a QUIT-CAI clinical activity when 'at risk' (i.e. when managing a problem where performing a QUIT-CA activity was a plausible option).

### Results/Evaluation

1,265, 1,145, and 553 registrars sat AKT, KFP, and OSCE examinations, respectively. On multivariable analysis, higher QUIT-CAI score percentages, that is, more questionable activities, were significantly associated with poorer AKT scores ( $p=0.001$ ), poorer KFP scores ( $p=0.003$ ), and poorer OSCE scores ( $p=0.005$ ). QUIT-CAI score percentages significantly predicted RACGP exam failure (OR 1.06 [95% CI 1.00, 1.12],  $p=0.043$ ).

### Discussion

Performing questionable clinical activities in training was predictive of summative RACGP Fellowship examination performance. A 1% increase in the absolute percentage of 'at risk' problems for which a registrar performed a questionable clinical action was associated with 6% increase odds of failing at least one examination. The QUIT-CAI represents a workplace-based assessment tool that is capable of predicting summative assessment performance. The utility of such a tool lies in its predictive value for licensure examinations and the associated implications for registrar learning and educator input. Conversely, performance in the RACGP examination can reflect actual clinical performance, validating current examination processes.

### References

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## Earn while they learn – medical students' training as Assistant in Nursing an Australian-first interprofessional education initiative.

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### Introduction/Background

In the early years the focus of undergraduate medical training is on theoretical knowledge with limited authentic clinical learning opportunities. Clinical placements are highly valued and generally reserved for the latter years of medical programs. To address this identified gap in clinical experience, we designed an innovative program to train and employ medical students as Assistant in Nursing (AiN). The AiN program provides students with practical learning in clinical workplaces with the benefit of paid employment possibilities alongside their studies.

### Methods

The AiN initiative is an interprofessional collaboration between the Joint Medical Program (JMP), the vocational education institution, TAFE in Newcastle, and the Hunter New England Local Health District. The program was developed by mapping the curricula from the first year of the JMP with the Certificate III Health Service Assistance. With practical training, workplace-based assessments and 80 hours of placements, successful students received certification to work as an AiN.

### Results/Evaluation

The pilot consisted of 15 students of whom 5 completed the requirements for AiN certification (33%). After evaluation of the pilot addressing identified barriers to engagement, such as time-constraints, a second cohort started in December 2023. 31 students enrolled, 18 have currently completed (58%) with 87% predicted to complete in the following months.

Students' feedback is very positive highlighting that this training and clinical experience enhanced their learning and offered invaluable practical insights into teamwork in patient-centred care. Qualitative data collection investigating students' experience, and professional development is planned, along with further student cohorts.

### Discussion

The importance of interprofessional education is well recognised (1). Whilst simulation and interdisciplinary group work is used in medical education, immersion in authentic clinical settings provides a powerful learning experience. This Australian-first program is an example of interprofessional clinical education increasing professional development opportunities, whilst providing a healthcare workforce and an income for medical students.

### Reference

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## Evaluating clinical placement performance: What is important to measure?

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<sup>1</sup>James Cook University

### **Introduction/Background**

Evaluating clinical placement is generally specific to a single element of student experience or a specific learning outcome related to a single health profession. However, to effectively evaluate the performance of clinical placement, all elements of the experience that are deemed to be important must be considered together. Therefore, any evaluation of clinical placement needs to be consultative, collaborative and comprehensive, so that clinical placement performance can be accurately assessed across different healthcare settings. Understanding important areas of measurement will enable key stakeholders to effectively evaluate clinical placement and will offer the opportunity for standardisation and comparability, but more importantly, it will measure the quality of placement experience, enable quality improvement and enhance educational opportunities. The objective of this study was to develop consensus on important areas of measurement needing to be included in the evaluation of clinical placement performance.

### **Methods**

Eighteen experts were recruited to a heterogeneous panel for a modified Delphi study. Three rounds of surveys were conducted to establish consensus on what is important to measure when evaluating clinical placement performance. Quantitative data were analysed to determine consensus with  $\geq 70\%$  agreement, and qualitative responses were thematically analysed.

### **Results/Evaluation**

Forty seven areas of measurement for the evaluation of clinical placement were identified with consensus achieved on 44 areas relating to four overarching themes: Learning Outcomes, Experience of Placement, Cost of Placement and Research in Clinical Placement.

### **Discussion**

This study has established a comprehensive list of areas related to the measurement of clinical placement performance that can be used to guide clinical placement quality and sustainability through ensuring intended learning outcomes, maintaining stakeholder relationships, and addressing cost concerns.

## Factors associated with early-career general practitioners' retention as independent specialists in former training practices

**Tran M**<sup>1</sup>, Fielding A<sup>2</sup>, Moad D<sup>2,3</sup>, Tapley A<sup>2</sup>, Holliday E<sup>3</sup>, Ball J<sup>4</sup>, Davey A<sup>2</sup>, van Driel M<sup>5</sup>, FitzGerald K<sup>6</sup>, Spike N<sup>7</sup>, Bentley M<sup>2</sup>, Kirby C<sup>8</sup>, Turnock A<sup>9</sup>, Magin P<sup>2</sup>

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### Introduction/Background

Retention of general practice (GP) registrars in their training practices is important for addressing the GP workforce deficit and maldistribution of GPs, particularly in rural areas (1). Understanding which factors impact registrar retention will help incentivise retention and attenuate the migraine of the rural workforce. We sought to establish the prevalence, and associations of retention of GP registrars in their training practices.

### Methods

A cross-sectional questionnaire-based study of early-career GPs was conducted in conjunction with evaluation of data contemporaneously recorded as part of vocational training. Participants were former registrars of three regional training organizations delivering GP training in New South Wales, Tasmania, the Australian Capital Territory and Eastern Victoria, who had attained GP Fellowship between January 2016 and July 2018. The outcome measured was whether the registrar had previously worked at their current practice during vocational training. Multivariable logistic regression was used to estimate the association between relevant explanatory variables and the outcome.

### Results/Evaluation

354 alumni responded (response rate 28%), of whom 322 provided data regarding previous training practice retention, with 190 (59%) having previously trained at their current practice as registrars. This rose to 69% of rural respondents. GPs were more likely to be retained by a training practice if it was of lower socioeconomic status (adjusted odds ratio (aOR) 0.82 [95% confidence interval 0.73, 0.91]  $p < 0.001$  for each decile of socioeconomic status) and if the practice provided two or more of home visits, nursing home visits or after-hours services (aOR 4.29 [2.10, 8.75],  $p < 0.001$ ). They were less likely to be retained by the practice if training was completed in a rural area (aOR 0.35 [0.17, 0.72]  $p = 0.004$ ).

### Discussion

Rural training location is associated with reduced odds of subsequent retention of GP registrars. This is occurring despite significant government investment in expansion of GP training in regional and rural areas. The practice factor most strongly associated with GP retention were the provision of out-of-practice and after-hours care. There may be altruistic, rather than monetary, reasons that explain this finding (2).

### References

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- (2) Morgan T, Tapley A, Davey A, Holliday E, Fielding A, van Driel M, et al. Influence of rurality on general practitioner registrars' participation in their practice's after-hours roster: A cross-sectional study. *Aust J Rural Health.* 2022;30(3):343-51

## Supporting Clinical Educators to construct, conduct and assess effective feedback sessions

**White A<sup>1</sup>**

<sup>1</sup>Griffith University

### **Introduction/Background**

When feedback is managed and delivered in an effective manner, the potential for improvements in individual student and overall team performance is enhanced. Continuous assessment of clinical practice is a well-used strategy in many clinical professions, where supervisors interact with students to provide feedback on technical and clinical learning often on a daily basis. However, when feedback is not given as frequently as required, or in a constructive or effective manner, or worse still, not given at all, progress and subsequent improvement of the student is diminished. The confidence of the student is decreased, which in-turn decreases the level of student engagement and motivation in the clinical workplace.

### **Discussion**

Supervisors of students in the clinical workplace need to have a clear understanding of how students receive feedback, so as to tailor feedback in the most effective manner. By acknowledging the natural responses to receiving feedback and what triggers people to be either resistant to or receptive of feedback allows clinical supervisors to become more flexible and adaptable. In addition, the benefit of reflection and reflective practice for self-awareness of communication styles is critical for clinical supervisors. By the 'deliverer' of the feedback increasing their self-awareness of their communication skills and increasing their capacity for effective listening, bias and judgement in assessment of performance can be avoided, fostering a more positive and beneficial outcome for both the deliverer and the receiver of the feedback.

### **References**

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## Pioneering Pathways: A Course Advice Program Cultivating Innovative Choices in elective pathways in Medicine

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<sup>1</sup>*The University of Melbourne*

### Introduction

Melbourne Medical School's redesign introduced our four-year "Discovery" electives pathway and the Course Advice program from 2022. Our flipped-classroom, online Course Advice program supports students in navigating their options via preparatory learning activities, reflective writing followed by one-on-one meetings to choose their Discovery topic. Discovery allows students to select elective subjects in year 1 & 2 students and then select the Research-Scholar or Clinical-Scholar pathway for years 3 & 4. The Clinical-Scholar pathway focuses on clinical experiences, leadership, scholarship, and advocacy, while the Research Scholar pathway emphasizes research skill development and engagement. Student Evaluation of the third Course Advice meeting is reported.

### Methods

We describe the influence of Course Advice 3 (CA3) meeting on our pilot-cohort students navigating their pathway selection for years 3 & 4, and the pathway selection, outcomes and satisfaction with the process.

### Results

Student satisfaction with the experience was notably positive, reflected in a mean rating of 4.17 (+/- 0.86). The program's standout features included its effective online format, with a high agreement score (mean 4.48 (+/- 0.87)), and Course Advisors' substantial knowledge of MD pathways (mean 4.44 (+/- 0.87)). The value of the program in assisting pathway decisions was also valued (mean score of 4.23 (+/- 0.92)). Areas for improvement included further development of the pre-meeting pathway option resources and the range of available Discovery choices. The pathway choice data showed half choosing Research Scholar and half the Clinical Scholar.

### Discussion

While the CA3 meetings were valued in supporting choices, there are opportunities for enhancement by bolstering pre-meeting resources and broadening Discovery options. The balanced distribution between Research Scholar and Clinical Scholar pathways indicates a burgeoning interest in research endeavours among students, signalling the need cultivate innovation in medical education electives to meet evolving student aspirations and societal needs.

## Overcoming barriers to the introduction of performance of point of care ultrasound and echocardiography (POCUS) into the undergraduate medical curriculum

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### Introduction/Background

Performance of point of care ultrasonography and echocardiography are now practised widely by clinicians in an increasing number of clinical specialities, starting in internship.

Medical students are increasingly exposed to the capabilities of POCUS during their clinical placements, and frequently request teaching to augment information derived during physical examination and to guide performance of clinical procedures such as vascular access.

The Australian Medical Council (AMC) is the peak body tasked with ensuring that the standards of education, training and assessment of the medical profession promote and protect the health of the Australian community. Its responsibilities include the assessment of medical programs and their providers against these standards, and the accreditation of programs that meet the standards, set out in the document *Standards for Assessment and Accreditation of Primary Medical Programs*.<sup>1</sup> In this document graduate outcome statements are grouped into four domains. Included in a statement on the first domain, the medical graduate as a practitioner, are the statements that '*On entry to professional practice, Australian graduates are able to demonstrate...competence in relevant and accurate physical and mental state examinations*' and '*...demonstrate competence in the procedural skills required for internship.*'

Despite recognition that POCUS facilitates accurate physical examination and reduces complication rates of clinical procedures, and with ultrasound assistance of many procedures now being the standard of care, performance of POCUS largely remains a skill learned in postgraduate training.

### Reference

1. Standards for Assessment and Accreditation of Primary Medical Programs. Australian Medical Council July 2023 <https://www.amc.org.au/accredited-organisations/review-of-accreditation-standards-for-primary-medical-programs/> accessed January 2024

### Issues and questions for exploration

What would an undergraduate POCUS/echocardiography course look like ?

In an already crowded curriculum, where would time for this proposed curricular activity be found, and if necessary, what would it displace ?

In a resource-constrained environment, how would a contemporary yet sustainable curriculum and faculty be sustained ?

How could successful completion of this curricular activity be assessed, and unsuccessful completion remediated ?

How could subsequent integration of skills into clinical practice be assured and measured ?

## Resuscitating EBP education for healthcare professionals and our patients

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### Introduction/Background

Evidence Based Practice (EBP) is a core competency in healthcare education (1). However, many clinicians question its validity and applicability, especially post-pandemic (2). Sydney University academic clinicians have taught EBP in an online postgraduate master's program since 2015. The unit of study (UoS) teaches formulation of a relevant clinical question (PICO), searching and appraising scientific literature, and ethically applying evidence to a patient. Students are mostly early career health professionals. Student and tutor feedback regarding teaching methods and content became less enthusiastic from 2021, which prompted a new approach. We aimed to improve the UoS and explore the student experience.

### Methods

The academic team formed an EBP working group. Regular meetings were held to review student and tutor feedback, review EBP education literature, and develop new content and assessments through a multifaceted, clinically integrated approach (3). Two webinars were added containing interactive quizzes about students' approaches to EBP. Lectures/tutorials on literature searching, interpreting evidence and shared decision-making were developed. Assessments were streamlined to two discussion boards where students formulated a PICO from a clinical scenario, discussed literature sources and displayed selected articles. The final assessment involved a critical appraisal essay and audio/audio-visual recording of explaining their advice to patient/carer, including approaching a conflicting perspective. We evaluated this EBP approach through student and tutor feedback, including surveys with Likert-scale and free-text responses.

### Results/Evaluation

From 2022-2023, overall UoS survey scores improved from 3.60 ( $\pm$  0.78SD) to 4.22 ( $\pm$  0.79SD) Data will be presented, including results from student surveys and webinar quizzes, showing improved engagement and application of EBP. Tutors' anecdotal comments of assessments will be presented, particularly in delineating top-performing students.

### Discussion

Understanding and interpreting EBP has changed, requiring new educational techniques, evaluation and adaptation. Our PeArLS aims to discuss effective, authentic EBP teaching approaches, including how to discuss EBP with patients.

## A tale of two partners: working with students during implementation of a new medical curriculum to enhance student experience

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### Introduction/Background

The University of Adelaide is sequentially rolling out a new 6-year Bachelor of Medical Studies/Doctor of Medicine (BMedSt/MD) program to replace the existing 6-year MBBS program. The pre-clinical structure (Y1-3) has undergone significant reform, with the curriculum changing from a spiral to a block model. The online structure within the learning management system has also required significant modification to provide an intuitive and engaging experience in a blended learning environment. To optimise the student experience, we prioritised working in partnership with students across this challenging transition.

### Methods

The introduction of our first semester of the BMedSt/MD curriculum provided an ideal platform to host focus groups with diverse student groups to seek feedback on aspects that did/did not meet student needs and expectations. Focus groups have been held for each new semester delivered, with data informing design of subsequent semesters. Monthly meetings with student representatives also provided an important opportunity for students to voice concerns.

### Results/Evaluation

During inaugural delivery of our BMedSt/MD course, students felt overwhelmed by the workload and found it difficult to prioritise their time. An unexpected challenge was the effect on near-peer supports due to loss of “corporate knowledge”, with senior peers feeling less able to support students undertaking the new program. Student evaluations have been excellent from first delivery as evidenced by course-satisfaction scores averaging 95% (average response rate 55%).

### Discussion

The design and implementation of a new curriculum is challenging for staff and students. Through working with students, we have been able to make prompt adjustments to the curriculum content, delivery and interface. We have also supported MBBS students to become familiar with the new program structure to enhance their ability to provide near-peer support. Student evaluations have highlighted they feel heard by academic staff.

### References

## Managing Multimorbidity - CPD Primary Care Webinar Series

**Sullivan L<sup>1</sup>**, Kurniawan M<sup>1</sup>

<sup>1</sup>*In Vivo Academy Limited*

### **Introduction**

Online problem-based learning is a useful tool for continuing medical education. However, its impact on physicians' performance and patients' health outcomes is unclear. With increasing life expectancy, the number of people affected by multimorbidity is a major concern in primary care. We developed a 4-part webinar series that measured changes in physicians' performance and effect on patient outcomes by: using a patient-centred approach in multimorbidity patients to identify and prioritise areas requiring treatment; using multimorbidity care models to structure patient consultations; and formulating and applying strategies that enhance patient–clinician communication.

### **Methods**

In 2022 and 2023, we invited general practitioners (GPs), practice nurses and pharmacists in Australia and New Zealand to attend a series of four Zoom, problem-based webinars, each with a different multimorbidity patient profile. We assessed the participants' knowledge and competence using interactive polls, Q&A and changes in practice using pre-, post and long-term surveys.

### **Results**

A total of 234 learners (GPs and nurses) in 2022 and 382 learners (GPs, nurses and pharmacists) from Australia and New Zealand completed the program. Using paired-data analysis, there was improved confidence in the learning outcomes among the participants because of webinar attendance. Almost 81% and 73% of participants in 2022 and 2023, respectively, committed to make changes in their practice after the webinar with 97% of learners who completed long-term follow-up (n=67) in 2023 reporting to have made changes to their practice.

### **Discussion**

Online, problem-based learning using different patient profiles can be an effective tool in improving performance and health outcomes for patients. Challenges exist in the number of long-term follow-up receipts, due we believe, to the fact that this attempt to remind and enable reflection is not an integral part of the GP accreditation requirements and therefore appears, by many, to be unnecessary.

## The Bioscience Landscape in Pre-Registration Nursing Programs: An Australian Investigative Study

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### Introduction/Background

Bioscience education is a pivotal component of modern nursing, often understood as a prerequisite for developing nursing students' clinical capacity. However, bioscience educators have voiced apprehension regarding the difficulties associated with instructing complex bioscience concepts to nursing cohorts within constrained time frames. The absence of clear guidelines perpetuates the challenges with curriculum design and delivery, leading to an inconsistency in the delivery of bioscience education within pre-registration nursing programs.

This study aimed to systematically investigate the contemporary landscape of Australian Bioscience education in pre-registration nursing programs, which was achieved through the following objective: to perform a national audit to review the logistical and administrative approaches of the Australian pre-registration nursing programs regarding bioscience design and delivery.

### Methods

The study took a pragmatic approach in the form of an Australian (national) University audit. The methodology employed aimed to comprehensively investigate the structure, educator's qualification, teaching approaches, and delivery mode of bioscience courses within the context of Australian pre-registration nursing.

### Results/Evaluation

Data gathered from 35 Australian Universities revealed significant inconsistencies in the delivery methods, course length, contact hours, and assessments of bioscience courses.

### Discussion

The data gathered from this study will contribute to the understanding of the historical context and approaches towards addressing the bioscience problem. Profound insights and further research have the potential to foster enhanced coherence and consistency in the provision of bioscience education, thereby elevating the quality and effectiveness of bioscience education in pre-registration nursing programs. A deep understanding of biosciences will enable registered nurses to practice safely and contribute to better patient outcomes.