



# ICN NP / APN Network Conference



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## Abstract Book



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Posters are listed alphabetically by presenting author Surname*

1.1 Clinical Workshop & Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

Clinical Workshop

1596

**Illuminating Middle Ear Disease & Antibiotic Stewardship with Optical Coherence Tomography**

**Dr. Malinda Teague**<sup>1,2</sup>

<sup>1</sup>Duke University School of Nursing, Durham, United States, <sup>2</sup>Duke Primary Care Pediatrics, Holly Springs, United States

Background: Acute Otitis Media (AOM) is the most common indication for pediatric antibiotics and is defined by the presence of purulent middle ear effusion (MEE). Visual properties used to diagnose AOM are highly subjective (redness, bulging, visible fluid), leading to variable diagnostic accuracy among primary care clinicians. Examination with the handheld otoscope results in an average over-diagnosis of AOM in ~27% of patients, leading to unnecessary antibiotic prescriptions in ~29% of related healthcare visits. New application of Optical Coherence Tomography (OCT), originally developed for ophthalmology, uses near-infrared light to provide depth-resolved imaging of the tympanic membrane and middle ear to identify the presence and turbidity of MEE.

Objectives:

1. Discuss the role of OCT-otoscopy in clinical practice to improve diagnosis and antibiotic stewardship
2. Identify and characterize middle ear fluid in OCT images
3. Identify use opportunities for OCT-otoscopy in NP practice and education

Methods/Approach:

A blinded reader image analysis quiz was conducted with 96 clinician volunteers after brief training on understanding and interpreting OCT images. Participants were assessed in four pediatric cases on diagnosis and confidence with patient history and otoscopy images compared to diagnosis and confidence with the addition of OCT imaging.

Key Learnings/Results:

- OCT images improve diagnostic accuracy with only brief training
- OCT-otoscopy can improve antibiotic stewardship in AOM with enhanced diagnostic accuracy
- NPs can use OCT-otoscopy in clinical practice and NP education

Conclusion: OCT-otoscopy provides non-invasive objective data to improve diagnosis and treatment of AOM. Nurse practitioners can model the use of this evidence-based diagnostic technology to improve clinical practice, patient outcomes, and antibiotic stewardship.

Significance (Impact): The over-diagnosis of AOM has significant impact on antibiotic overuse in children and antibiotic resistance. NPs can improve antibiotic stewardship by using OCT-otoscopy in practice and NP education, positively impacting patients and communities around the globe.



**Oral Presentations**

611

**Evaluating patient cohort characteristics, length of stay and care delivered: A Paediatric Emergency Nurse Practitioner service in South Australia: A retrospective analysis of 12 months of patient presentations**

**Jeffrey Faccenda**, Dr Natasha Jennings, Prof Kathleen Tori

The delivery of quality patients care in the emergency department (ED) is emerging as one of the most important service indicators to be measured in health services today.

The Paediatric Emergency Department (PED) at the Women’s and Children’s hospital (WCH), is the largest and only dedicated emergency service for paediatrics in South Australia. Since 2012 the WCH PED has had a Nurse Practitioner (NP) service running out of a “see and treat” style fast track service implemented as a service innovation. The primary aim of the role was intended to enhance healthcare services, improve the efficiency and timely delivery of high-quality care to patients.

While there have been numerous studies focussed on adult or mixed emergency department NPs there is very little research specific to paediatric NP practice existing both in In Australia and internationally. This limited availability of quality evidence hinders the evaluation of the impact of the Paediatric NP role on patient outcomes. This can lead to potentially erroneous workforce projections, limitations on expansion of scope of practice and the role in general and may form a reliance on grey literature or local based collaboration or information sharing.

The aim of this study was to perform a retrospective evaluation of the demographic and clinical characteristics of the patient population treated by Nurse Practitioners and Nurse Practitioner Candidates at the WCH and also evaluate ED service indicators for this cohort including:

- Waiting time.
- Overall length of stay in the emergency department for both admitted and discharged patients.
- Disposition diagnosis and destination.

The results of this study will be used to lead strategies for quality improvement in NP led care as well as service planning and policy influence to expand the NP role in this area.



595

## **Unlocking the Potential of Clinical Nurse Specialists (CNSs): Strategies for Optimal Impact in Advanced Practice Nursing**

**Dr Kimberly Elgin<sup>1</sup>**

<sup>1</sup>University Of Virginia Health, Charlottesville, United States

**Background:** Although the Clinical Nurse Specialist (CNS) is the oldest advanced practice nurse role, it is often misunderstood. Contributing factors include role fluidity, broad scope of practice, and variation in state legislation. Removing organizational structural barriers to full scope of practice is an effective strategy to leverage CNS impact as advanced practice registered nurses (APRNs) within complex systems.

**Objectives:** Primary objectives focused on aligning structure and processes to facilitate top-of-license practice, enhancing professional visibility, reshaping interprofessional practice, optimizing documentation, and defining outcome measures.

**Methods or Approach:** Implementation of a supervisory structure within an academic healthcare system Center of Advanced Practice, provided CNSs with opportunities for top-tier practice, transformed interprofessional processes, elevated patient care quality, and contributed to retention of this workforce.

**Key learnings or results:** Key outcomes encompassed aligning job descriptions with national standards, securing approval for CNS privileging, establishing team metrics, standardizing electronic medical record documentation, exploring revenue generation avenues, publishing annual outcome reports, and retaining the CNS workforce.

**Conclusion:** In the ever-evolving landscape of healthcare, optimizing the CNS role is paramount. A centralized structure with defined advanced practice leadership positions systems to effectively navigate change.

**Significance (Impact and Reach):** The significance of this work extends to leaders shaping the future of the CNS role, emphasizing the need for adept promotion of CNS visibility and value. Advanced practice leaders engaging in this optimization work play a critical part in securing the future of this unique APRN role.



## 1.2 Clinical Workshop & Multidisciplinary Oral Presentations

### Clinical Workshop

413

#### Motivational Interviewing to promote lasting behavior change

**Dr Carol Berger<sup>1</sup>, Dr Lynette Dixon**

<sup>1</sup>Maryville University, St. Louis, United States

Background: Motivational interviewing has been used by therapists extensively for over 35 years. Initially developed for work with patients with alcohol use disorder, much success involving facilitation of behavior change in various applications has been observed. Over the past decade more attention has been given to this technique in the medical field to deliver more patient centered care.

Highlight importance of Topic: Chronic diseases require behavior changes in diet and lifestyle that are often challenging for patients and providers alike. Providers educate on lifestyle modifications and prescribe medications for optimal patient health only to have the patients come back repeatedly with little to no progress. Motivational interviewing (MI) is a different approach requiring a shift in mindset and a new skillset. The MI approach teaches providers how to lead patients on a path of discovery where they find their own motivation to make the necessary life changes. Studies find that this approach is not only more successful, but it improves patient satisfaction as well as lowers provider burnout scores. In this way advanced practice nurses can help lead the way to make lasting change in their patients' lives making the world a healthier place.

Purpose of Workshop: Introduce the major concepts of motivational interviewing as it applies to patient centered care.

Learning objectives:

1. Define what motivational interviewing is, its purpose, and principles and contrast it to the traditional expert model.
2. Identify key components of MI.
3. Recognize the stages of change and how MI could be applied to facilitate behavior change.
4. Apply basic MI techniques in role-play scenarios.

Workshop Method/ Format: Format will be mini-lesson, workshop, debrief utilizing lecture, demonstration, and group work.

Outline:

Introduce MI and key components

Review Transtheoretical stages of change

Roleplay MI in practice

Discussion (Object 1, 2,3).

Group Work - (objective 3 and 4)

Final Discussion/ Debrief / Resources

Take Aways: Participants will understand basic concepts of MI and how to apply it in practice. Resources will be given.



### Oral Presentations

808

#### Your Device Says You Have Atrial Fibrillation

**Dr Marcie Smigorowsky<sup>1</sup>, Dr Edith Pituskin<sup>1</sup>**

<sup>1</sup>University Of Alberta Faculty of Nursing, Edmonton, Canada

Background: Atrial fibrillation is the most common cardiac arrhythmia worldwide. Worrisome complications including heart failure and ischemic stroke, can be limited with early intervention. Documenting the arrhythmia is essential for correct diagnosis and initiation of proper treatment.

Mobile, wearable technology has been advancing and growing rapidly in popularity. There are various personal electrocardiogram (ECG) monitors (e.g. smart watches) which can continuously monitor heart rhythms or record triggered ECGs. The monitors can deliver alerts identifying if fast rates or abnormal arrhythmias are detected. The alerts can cause concern for health conscious individuals who seek care from their health care providers.

Nurse practitioners are often the first contact for patients who have identified alerts on their device. NPs need to be aware of the benefits and limitations of mobile wearable technology related to cardiac arrhythmias.

Objectives

Nurse practitioners need to:

1. Understand how to address patient concerns regarding mobile wearable technology findings
2. Know criteria required to diagnose atrial fibrillation
3. Be aware of options to document atrial fibrillation

Approach: During this session we will discuss criteria necessary to diagnosis atrial fibrillation including with mobile wearable technology. Other methods to document atrial fibrillation will also be discussed.

Key Learnings: Atrial fibrillation must be documented in order to make a diagnosis.

Mobile wearable technology can assist with diagnosis however there are important considerations to be aware of.

Conclusion: Atrial fibrillation is the most common cardiac arrhythmia. Identifying and documenting the arrhythmia is essential to the diagnosis. Mobile wearable technology can assist with diagnosis but it is not always accurate.

Significance: Atrial Fibrillation is increasing in prevalence globally. By understanding the limitations of mobile wearable technology, nurse practitioners can play a key role in diagnosing atrial fibrillation.



1622

### **Moving from cooperation to collaboration: ensuring patient-centred outcomes through interdisciplinary care**

**Aoife Dillon**<sup>1,2</sup>

<sup>1</sup>St James's Hospital, Dublin, Ireland, <sup>2</sup>UCD School of Nursing, Midwifery and Health Systems, Dublin, Ireland

Background: A collaborative approach to patient care can improve communication, prevent unnecessary duplication, improve working relationships and provide better experiences for people accessing healthcare. Comprehensive Geriatric Assessment (CGA) is the gold standard approach to the care of frail older people and requires multiple disciplines working together.

Objectives: Improve the experiences and outcomes of older people presenting to acute hospital services by: beginning a CGA in the emergency department (ED), providing alternatives to admission and facilitate discharge from the ED, and develop rapid access pathways to Geriatric Ambulatory Care Services and Community Primary Care Services.

Approach: A specialist older persons team, consisting of an Advanced Nurse Practitioner, Physiotherapist, Medical Social Worker and Occupational Therapist was embedded within the ED of a large Irish inner city teaching hospital.

Results: From May 2017 to May 2023 12,469 older patients were screened and/or assessed by the interdisciplinary team on presentation to the ED. 7767 (62%) of these patients were discharged directly from the ED. Appropriate follow up and onward referral was required to facilitate the discharge of the most complex patients, with 1171 referrals to specialist Geriatric services and 1940 referrals to primary, community and voluntary services made during this time.

Key learnings: The team quickly realised the benefit of collaborative practice, with shared knowledge and skills allowing each member gain expertise traditionally siloed by other disciplines. Truly collaborative working also involves patients, families, carers and communities to deliver the highest quality of care across settings.

Conclusion and Significance: An interdisciplinary approach is needed to ensure that geriatric emergency medicine plans of care align with individual patient goals. Skilled, interdisciplinary teams are needed in the ED setting to ensure coordination of services spanning the patient healthcare journey, from prehospital through ED to inpatient settings and onwards to community based care.





### 1.3 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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#### **“What are Advanced Clinical Practitioners expectations of the benefits in pursuing this role, and are these being realised? A mixed method study**

**Vikki-Jo Scott<sup>1</sup>**

<sup>1</sup>University of Essex, Colchester, United Kingdom

Background: Advanced Practitioners (ACPs) have been utilised worldwide to reform health services to address population needs. However, previous research identifies barriers which prevent the effective implementation of ACPs.

Aim: To better understand the expectations ACPs have regarding the role, and to evaluate whether they are currently being met so that focused educational and policy initiatives can be developed to reduce gaps between expectation and reality.

Methods: This on-line cross-sectional study uses a sequential, mixed method, exploratory design where themes were created from focus groups to construct a follow up questionnaire. 291 UK participants were recruited via social media and ACP educational and policy networks. Exploratory data and reflexive thematic analysis were employed to probe and visualise results, drawing findings together into narrative synthesis.

Findings: This research provides insight from a diverse group of ACPs of their current lived experiences, aspirations, and driving forces to come into or stay working in the role. Five themes were constructed from focus group discussions. 1) clinical/ non-clinical balance, 2) full use of knowledge, skills and experience, 3) leadership in quality improvement, 4) career progression and 5) policy, vision, and organisation. Gaps between ACPs expectations and their lived experience of the role were identified.

Conclusion: To achieve the expected growth of ACP, attention is needed on narrowing the gaps between the expectation and reality of working in this role.

Significance: (Impact and Reach) This research has identified key actions needed to enhance the impact and reach of ACPs and to recognize their value. This includes ring fencing time for non-clinical activity, providing opportunities for leadership, access to professional development (including supervision), and clearer career planning. Further research is needed, including gaining a better picture of the ACP community. Initiatives to standardise ACP should be further embedded and measured for impact.



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#### **An exploration of shared implementation leadership in nursing leadership teams: Highlighting the unique and complementary roles of APNs and NPs on a cardiac surgical unit**

**Sonia Castiglione<sup>1</sup>**, Dr Mélanie Lavoie-Tremblay<sup>2</sup>, Dr Kelley Kilpatrick<sup>1</sup>, Dr Wendy Gifford<sup>3</sup>, Dr Sonia Semenic<sup>1</sup>

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Background: Nurses in formal leadership roles at the point of care, including advanced practice nurses (APNs) and nurse practitioners (NPs), have role expectations to evolve nursing practice and support the implementation of evidence-based practices (EBPs). Although leadership support is considered critical to successful implementation, very little is known about how multiple and diverse point of care leaders actually do this.

Objectives: In this presentation we will share findings from an ongoing study exploring the process of shared implementation leadership in nursing leadership teams on inpatient hospital units, highlighting the unique and complementary roles of NPs and APNs.

Methods: An in-depth instrumental case study is being conducted in a cardiac surgical inpatient unit that had successfully implemented practices related to a new discharge process at a large university affiliated hospital in Montréal, Canada. In 2023, a focus group (n=7 participants), 13 individual interviews with key informants (including an APN and NPs) involved in the EBP implementation, and a review of organizational documents (n=126) were conducted. Emerging themes were identified through a thematic analysis.

Key learnings: Multiple and diverse nurse leaders at point of care collectively and collaboratively enacted relations-, change- and task-oriented leadership behaviours throughout the EBP implementation. Specifically, the APN engaged in guiding and coordinating roles with other leaders while NPs were content experts and had linking roles with healthcare professionals across the care trajectory.

Conclusion: Findings can inform the development of tailored implementation leadership interventions and strategies to support the complementary roles of nurse leaders at the point of care and guide organizational leaders on expectations for APNs and NPs in EBP implementation.

Significance: This study will be the first to illustrate the shared implementation leadership behaviours enacted by APNs and NPs with other nurse leaders at the point of care.

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### **Fostering Leadership Excellence: A Systematic Review of Interventions for Developing Nurse Practitioner Leadership Competencies**

**Erin Kennedy**<sup>1,2,3</sup>, Ryan Chan<sup>1,3</sup>, Dr Jacqueline Torti<sup>1,2</sup>

<sup>1</sup>Western University, London, Canada, <sup>2</sup>Centre for Education and Research Innovation, Schulich School of Medicine and Dentistry, London, Canada, <sup>3</sup>Arthur Labatt Family School of Nursing, London, Canada

Contemporary healthcare is inherently dynamic and complex demanding collaborative leadership competencies. Despite this need, the educational landscape for preparing teams for such roles remains limited. Nurse practitioners (NPs) occupy a crucial role within interdisciplinary healthcare teams, combining elements of both nursing and medical practice. Utilizing this specialized skill set, NPs often assume leadership positions that encompass both patient-centered and organizational responsibilities. Yet, little is known about how NPs are prepared for such roles. Consequently, an understanding of the existing landscape of leadership education for NPs is necessary to ensure evidence-based initiatives that address gaps in competence.

A systematic review of the literature was undertaken, informed by the Preferred Reporting for Systematic Reviews and Meta-Analyses (PRISMA) Statement and the Best Evidence in Medical Education Guide No. 13, 'Conducting a Best Evidence Systematic Review'. Published English-language articles between 1980-2022 were sought from Medline, Embase, CINAHL, PsychInfo, ERIC and Proquest Nursing databases.

Of the 1854 articles identified for screening, 7 met inclusion criteria. The existing literature consistently lacked an interdisciplinary approach to leadership education, with a notable absence of interventions that involved collaboration with other interdisciplinary team members. Additionally, no studies addressed the integration of NP students and practicing NPs in leadership education. Although all studies utilized a leadership framework for interventions, their focus was on the cognitive and emotional domains of leadership, overlooking leader character.

To date, a comprehensive examination of leadership education for NPs has been lacking within the literature. Moreover, our findings emphasize a significant limitation in the current literature, which predominately emphasizes isolated training that focuses solely on cognitive leadership competencies.

There is an urgent need to implement interdisciplinary leadership education for NPs. This training must foster collaboration between healthcare disciplines and attend to all domains of leadership including cognitive, emotional and character domains.

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### **Developing an innovative multidisciplinary Remote and Rural Advanced Practice (RAP) post-graduate educational masters programme**

**Lizanne Hamilton-Smith**, Dr Clare Carolan, M Roland Preston

<sup>1</sup>University Highlands and Islands, Hamilton, United Kingdom

Background: 98% of Scotland's landmass is rural with nearly one million rural residents' access to sustainable healthcare provision is impeded by their geographical location. Recognising this as a national priority provided the stimulus to create a masters (MSc) education programme and a national clinical supervision hub for the remote and rural advanced practitioners, who will be extended autonomous generalists delivering a wide range of quality healthcare services across the age spectrum services that carry a higher level of clinical responsibility while work independently in the remote and rural community, primary care and out-of-hours settings.

Objectives: Innovate a multidisciplinary Rural Advanced Practice (RAP) educational programme to develop remote, rural and island advanced practitioners' skills, capabilities, and competencies to become contemporary evidence-based effective practitioners.

Methods: Revolutionise master's level multi-professional post-graduate educational provision with a part-time blended teaching, learning and assessment spiral curriculum and supported with the national multi-disciplinary clinical supervision hub. The work-based assessment is a portfolio of evidence spanning over two years to equip graduates

with the skills to lead, develop, and demonstrate their impact on the remote and rural healthcare services through education, innovation, and research.

Results: Positive engagement with various stakeholders enabled the successful validation of the MSc Rural Advanced Practice programme with the first cohort of fully funded students commencing in 2023.

Conclusion: An excellent exemplar of collaborative, co-production, and tripartite approach developing autonomous practitioners who are equipped with advanced generalist skills and the capability, competence, confidence, and accountability to address diverse population healthcare needs and provide a sustainable rural healthcare workforce.

Significance: Our programme has initiated national and international interest in cultivating supporting structures for information, resources, and developmental opportunities across the four pillars of rural advanced practice. This universal archetype promotes the influence of independent advanced healthcare professionals delivering high-quality care in remote and rural communities.



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### **Staff Experiences with the Implementation of Nurse Practitioner Clinics in a Semi-rural Canadian Province**

Dr Lillian MacNeill<sup>2</sup>, Dr Alison Luke<sup>2</sup>, **Jennifer Splane**<sup>2,3,4</sup>, Karin Légère<sup>2</sup>, Eve Justason<sup>2</sup>, Dr Sarah Balcom<sup>1</sup>, Dr Shelley Doucet<sup>1,2</sup>

<sup>1</sup>University Of New Brunswick, Saint John, Canada, <sup>2</sup>Centre for Research in Integrated Care, Saint John, Canada, <sup>3</sup>Dalhousie University, Halifax, Canada, <sup>4</sup>Canadian Centre for Advanced Practice Nursing Research, Hamilton, Canada

Background: Access to primary care is a challenge globally. In the Canadian province of New Brunswick (NB), approximately 15% of citizens do not have a primary care provider (PCP). The Government of NB recently implemented three clinics staffed by nurse practitioners (NPs) across the province with the objective to reduce the provincial waitlist for a PCP.

Objective: This study aimed to identify barriers and facilitators to clinic implementation and operation, as perceived by NP-clinic staff.

Methods/Approach: A cross-sectional qualitative descriptive design was used to explore staff experiences with the implementation of NP-clinics in NB. Data was collected using semi-structured interviews and analysed using qualitative content analysis. Study participants included 16 current and past employees of two NP-staffed clinics in NB. These participants included NPs, registered nurses, licenced practical nurses, as well as administrative and managerial staff. Qualitative content analysis was used to examine the interview data.

Key Learnings/Results: Facilitators to program implementation and operation included: having experienced mentors, fostering a collaborative practice, and having a well-equipped clinic. Barriers consisted of strict timelines for implementation; complex decision-making processes during clinic set-up; large and complex caseloads; limited clinic space; issues with staff recruitment and retention; and issues around role definition and scope of practice. Study participants also expressed their views of the clinic impact in community, including increased access to primary care and reduced wait-times at emergency departments and walk-in clinics. Finally, participants shared their recommendations for future NP-clinic implementation, which included increasing the number of NP-clinics in NB and increasing connections to other care providers across clinics.

Significance/Impact: NP clinics are increasingly being implemented across Canada and internationally to improve primary care access, particularly in areas where there are shortages of PCPs. Findings from this study will help inform the development and implementation of other NP-clinics both in Canada and abroad.



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### **Voices from the Field: Unveiling the Significance of Advanced Practice Nurse Role Development in Pakistan through a Qualitative Inquiry**

**Dr Rozmeen Shivji**<sup>1</sup>, Dr Rubina Barolia, Dr Michael Kremer

<sup>1</sup>Rush-college Of Nursing, United States

Background: In countries with low gross domestic income, such as Pakistan, the provision of healthcare access presents formidable challenges. The introduction of Advanced Practice Nurses (APNs) into the healthcare workforce represents a pivotal initiative aimed at addressing these access disparities and enhancing health outcomes. The COVID-19 pandemic has exposed the fragility of healthcare systems worldwide, prompting calls for comprehensive reforms to ensure equitable access to essential care and resources, especially in remote and marginalized areas. WHO advocates

for global initiatives focused on strengthening nursing and midwifery, emphasizing investments in education, employment, and leadership to bolster the nursing workforce.

**Purpose:** This study aims to explore nurses' opinions regarding the development of the APN role in Pakistan.

**Methodology:** Twelve semi-structured interviews were conducted with nurses practicing in Pakistan from August to October 2022. Data analysis utilized inductive techniques, whereby codes were derived from the data, organized into categories, and synthesized into themes.

**Results:** Data analysis indicated widespread support for the introduction of the APN role in Pakistan. Nurses envisioned APNs enhancing healthcare accessibility, particularly in underserved areas, while ensuring high-quality patient care, continuity of care, and cost-effectiveness. Additionally, the establishment of the APN role was seen as a means to improve the professional image and career prospects of nurses. However, perceived barriers to APN implementation included Pakistan's unstable political environment, resistance from physicians, deficiencies in nursing education, and a lack of general and professional acceptance of the APN role.

**Conclusion:** Developing the APN role in Pakistan could address the increasing demand for healthcare access and improve patient and population outcomes. Also, could enhance career opportunities for nurses.

**Impact:** This pioneering qualitative study marks the inaugural investigation into the readiness of Pakistani nurses for the development of the APN role. It serves as a beacon, guiding the journey towards fulfilling this cherished ambition.



## 1.4 APN's Role in Shaping a Healthier, More Equitable World

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### Developing clinical reasoning for advanced practice prescribing

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Background: Prescribing practice has developed over the years as a key component of Advanced Clinical Practice. Within the UK principles of nurse prescribing are introduced within undergraduate nursing and midwifery programmes with an expectation that professionals will be able to prescribe earlier in their career and progress to advanced practice roles (NMC 2018).

Within curriculum, clinical reasoning using a structured approach is promoted to justify prescribing decisions. The RAPID-CASE prescribing consultation model was created from available evidence to support ongoing development of prescribing practice expertise.

Objectives: The purpose is:

- to support prescribing practitioners through further development, evaluation, and refinement of a prescribing consultation model
- to gain views on the use of this model for prescribing decision-making and analyse the results to inform potential improvements.

Methods: A qualitative study used a questionnaire with a semi-interview-style format to evaluate the first iteration of the model. Participants were health service employees, or lecturers at UK Universities who teach clinical decision-making for prescribing.

Key Learnings: Despite the low level of participants (n35), the model evaluated positively and some key points led to a proposed iteration. Most respondents (80%) had never used the RAPID-CASE model before, but after examining it, 94% were likely or very likely to use it in future practice. Participants strongly rated the model as a learning tool for new prescribers, an aide-memoire, a teaching tool, and a way justify clinical decisions. Most respondents didn't recommend any specific changes, but suggestions included adding a pre-assessment and review phase and giving more emphasis on lifestyle factors and the importance of a person-centred or person-led approach

Conclusion: Consultation models and decision aids retain value for clinical decision-making and reasoning as prescribers develop expertise.

Significance: The study findings have implications for both educators and nurse practitioners to support the preparation of advanced practice.



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### Optimizing Patient Care: Advanced Practice Nurses in Substance Use and Hepatitis B Immunization

**Mika Nonouchi<sup>1</sup>**

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The implementation of universal infant hepatitis B immunization in British Columbia, Canada, has significantly reduced the rates of acute and chronic hepatitis B infections since 2001. However, a small number of cases persist, particularly among illicit drug and problematic alcohol users, necessitating screening and immunization efforts. Against the backdrop of the opioid crisis declared in 2016, primary care providers are encouraged to screen the general population for substance use.

This study focuses on assessing the effectiveness of an advanced practice nurse-led outreach in primary care, a semi-urban mental health substance use program. An electronic documentation system was used to evaluate high-risk population screening and hepatitis B immunization between June 1st, 2014, and Oct 31st, 2023. Among 1198 individuals, 611 were identified as illicit drug users, 92 as problematic alcohol users, and 59 as both. A total of 644 at-risk individuals were identified, with 229 undergoing hepatitis B screening and 122 receiving immunization. This represents a 50.2% immunization rate among 223 HBsAg non-reactive individuals.

While Canada estimates that 21% of the population meets substance use disorder criteria, the nurse practitioner identified 53.8% with such disorders in their roster. Although there is no existing data on high-risk population screening and hepatitis B immunization in primary care settings in British Columbia, the nurse practitioner's outreach efforts demonstrated success in identifying and immunizing at-risk individuals. The nurse practitioner's unconventional approach, involving collaboration with local agencies, outreach clinics, and proactive engagement, showcases the

crucial role of advanced practice nurses in preventing hepatitis B and addressing the opioid crisis. This example underscores the importance of collaborative healthcare delivery for a healthier and more equitable world.

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### **Exploration of the Role Positioning of Advanced Practice Nurses in RICU**

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**Purpose:** The purpose of this study is to explore the role positioning of advanced practice nurses in the Respiratory Intensive Care Unit (RICU), with the aim of improving the quality of nursing services, enhancing patient satisfaction, and providing reference for nursing education and management.

**Method:** This study employs literature review, in-depth interviews, and questionnaire survey. Firstly, through literature review, the development and current status of advanced practice nurses in RICU are understood. Secondly, through in-depth interviews, the work content, challenges, and expectations of advanced practice nurses are explored. Finally, through questionnaire survey, the perception and evaluation of the role of advanced practice nurses by nurses in RICU are collected.

**Results:** The study finds that the role positioning of advanced practice nurses in RICU mainly includes the following aspects: firstly, clinical instructors, who need to provide clinical guidance and education to junior nurses; secondly, team coordinators, who need to coordinate various resources to ensure the smooth progress of nursing work; thirdly, quality improvers, who need to participate in the evaluation and improvement of nursing quality; fourthly, patient advocates, who need to pay attention to patients' needs and protect their rights. In addition, advanced practice nurses also face challenges such as high work pressure and unclear career development paths.

**Conclusion:** The role positioning of advanced practice nurses in RICU is diverse, as they are not only clinical practitioners but also managers and educators. Their work is of great significance for improving the quality of nursing services and enhancing patient satisfaction. Therefore, it is recommended that medical institutions should clarify the role positioning of advanced practice nurses, provide more career development opportunities and support to stimulate their work enthusiasm and innovation.

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### **An NP-coordinated care model for pregnant women complicated with diabetes mellitus in China**

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**Background:** With the growth of prevalence of diabetes mellitus (DM) in China, the prevalence of pregnancy complicated with DM is increasing. The suboptimal health outcomes of both maternal and infant have caught much attention. However, an organized multidisciplinary team (MDT) care model for this population is still not well developed in China. **Aims:** To clarify main needs of patient care and explore an NP-coordinated care model and its effect.

**Method:** In-depth interviews were conducted with relevant discipline personnel. Echoing to the founding, an NP coordinated "one-stop" MDT care model was developed. A mixed research method of quantitative and qualitative study was adopted to evaluate its effect.

**Results:** In traditional model, patients urgently needs education and continuous management on diabetes. Participation of NP as a coordinator for a new MDT care model was extremely welcomed by doctors and patients, which was characterized by whole-process education and management. A total of 37 patients were enrolled and the effective response rate was 100%. The feedback from patients and physicians was very positive, and all patients were able to return to the clinic on schedule and actively cooperated with follow-up management during pregnancy. Suggestions included increasing the independency of NP practice, empowering part of exam and medical prescription right to NP to reduce the workload of doctors. Obstacles include limitation of policy authority, unclear role of NP, and insufficient social recognition.

**Conclusion:** The NP-coordinated care model provided personalized, systematic and continuous management for the patients with pregnancy and could be a form of advanced nursing practice in China.

**Clinical significance:** NP is a new role of advanced nursing practice in China and NP practice is still in its infant stage. This study explored the feasibility of a new way for NP practice, which would be of great importance in promoting universal health coverage.

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## Breaking barriers: empowering people with intellectual disabilities through the role of advanced practice nurses in health promotion

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Compared to the general population, people with intellectual disabilities (PWID) are vulnerable in terms of health, as they are more vulnerable to illness. Simultaneously they face structural barriers in healthcare systems and often have reduced health literacy. Knowledge in Germany about PWID in health promotion services is low as well as target-group oriented health services and access to care.

This is where the project comes in: aiming to counter health-related imbalances, advanced nurse practitioners (ANPs) support PWID in developing and implementing individual prevention plans - based on social setting analyses. The approach is highly innovative, as ANPs are not yet established in the German healthcare system, especially in outpatient care for PWID. The project-support takes place in form of participative outreach home visits over one year and is intended to strengthen individual health situation, resilience and health-related life quality through participatory inclusion in prevention and health promotion in four areas of prevention (nutrition, stress, exercise, addiction). Methodologically, the concepts of specific case management and specialized care expertise, uniquely tailored to address the needs of PWID, are employed with a focus on fostering participation and empowerment.

Initial analyses of completed cohorts indicate challenges in achieving health improvement within a year, despite the initiation of numerous processes. Individual health issues, strengths and resources were identified, participation, empowerment, self-efficacy, resilience and health literacy were promoted.

PWID is a very heterogeneous group with different knowledge, motivations and goals, therefore different starting points must be addressed. Many barriers regarding interprofessional collaboration due to the not well-known field of ANP in Germany lead to the requirement of determination and perseverance to influence existing structures.

ANPs, with their skills and holistic approach, are well-equipped to identify and address health disparities by collaborating with interdisciplinary teams, leading to active contributions to reducing disparities and promoting health equity.

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## Breaking Down Barriers & Opening Doors: The Nurse Practitioner Role in an Innovative Social Medicine Program

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Background: The University Health Network (UHN) is Canada's largest academic health sciences centre, located in downtown Toronto. UHN's Social Medicine Program (SMP) is focused on directly addressing the social determinants of health that influence poor health outcomes for structurally marginalized patients. In a partnership between UHN, the City of Toronto and community partners, occupancy is planned for March 2024 for a modular building that will provide safe, accessible and affordable housing to 51-people from marginalized groups that are frequent users of hospital services. Rent will be geared-to income, and residents will have access to primary care provided by Nurse Practitioners (NPs), as well as other supports to ensure they are able to thrive.

### Objectives

1. Provide an overview of the NP role in the SMP
2. Describe the care model pathway and services provided by NPs
3. Discuss the progress of this prescriptive housing initiative

Approach: There will be a clinic in the building for NPs to provide comprehensive primary care services using harm reduction and trauma informed principles. This humanitarian initiative is intended to: provide safe housing, decrease hospital visits, improve health, and support human dignity.

Results: Short term indicators of success will be reviewed, including: patient visits and engagement with NPs, metrics related to resident's hospital visits, and patient satisfaction with the care model pathway.

Conclusion: NPs are uniquely situated to lead innovative programs that address the social determinants of health to provide comprehensive, equitable, holistic care to structurally marginalized patients.

Significance: This program has far-reaching implications related to addressing the social determinants of health and improving access to care. Additionally, this innovative concept will demonstrate utilization of an NP-led model of care in an unconventional way.





## 1.5 The UK perspective – Multi-professional Advanced Practice

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### The development of a multi professional curriculum framework for non surgical oncology advanced practice

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Background: Non-surgical oncology care is delivered in a variety of settings from technologically advanced, state of the art, tertiary stand-alone cancer centres to peripherally based services closer to patients' homes. This wide variation in infrastructure and treatment settings means there is no single delivery model that will be universal throughout the country and local solutions will need to be developed to cope with the differences in staffing, skills mix, population density etc.

The curriculum framework aims to direct education, producing advanced practitioners across several professional backgrounds who are flexible and adaptable with the ability to rapidly evaluate and apply new evidence to their practice and service ensuring the effective management of available resources.

Development: Through a local and national consultation of the framework and implementation into practice in the Northeast of England, the curriculum provides structure through capabilities in practice (CiPS). Covering the generic expectations of any professional working at an advanced practice level. Common Oncology CiPs to ensure all professions have an underpinning knowledge to inform their clinical decision making within their specific scope of practice. Specific CiPs to support professionals working in systemic anti-cancer therapies, radiotherapy, and acute oncology services. Through a working party of key stakeholders and professions such as nursing, pharmacy, allied health professions and clinicians, the framework provides guidance to those in a wider variety of professional backgrounds within this speciality.

Outcome: Through development of the curriculum framework the next steps are to see further implementation into education and training and clinical practice across non-surgical oncology. A structured framework to set objectives for the learning of individual practitioners who have a variety of different professional backgrounds ensures parity in the underpinning knowledge and skill across the speciality and the opportunity to provide focused training to ensure safe provision of care in non-surgical oncology.



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### Emergency Medicine ACP multidisciplinary education and training. Developing a sustainable regional workforce, utilising a collaborative model

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Emergency Medicine – Advanced Clinical Practitioners (EM-ACPs) play a vital role in the delivery of emergency care across the UK and now make up over 10% of the Royal College of Emergency Medicine membership (RCEM, 2022). Since 2016, EM-ACPs have been able to credential, in either adult or paediatric practice, with the RCEM, obtaining a recognised qualification against a standardised curriculum.

EM-ACPs can be from a range of professional backgrounds, including nursing, paramedicine, physiotherapy and pharmacists. Each registrant brings their own skills, knowledge and experience to the role prior to embarking on a training programme which takes a minimum of 3 years and includes a Master's level academic award.

With the support of Health Education England, a regional programme was devised in the Wessex region to prepare trainee ACPs for credentialing with the RCEM. A collaborative approach between several Emergency Departments (EDs), a higher education institute (HEI) and the regional Advancing Practice Faculty devised and delivered a structured training course, using the RCEM syllabus.

Each trainee ACP (tACP) was allocated two supervisors, a consultant in EM and an experienced ACP or Consultant Nurse or Paramedic. This approach ensured appropriate support with all areas of practice, across all 4 pillars of advanced practice and met the requirements of the RCEM and the HEI for supervision and assessment. Annual milestone assessments were implemented to ensure progression throughout all years with a formal review every 12-months.

This programme is now well established and has been emulated in other regions. The success rate in credentialing is higher than the national figure and successful ACPs have gone on to lead this programme as it continues to develop, in particular in light of the 2022 curriculum revision.

## Transforming the Healthcare Workforce: Exploring Advanced Practice Roles and Degree Apprenticeships at Manchester Metropolitan University

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<sup>1</sup>Manchester Metropolitan University, Manchester, United Kingdom

The increasing pressures upon the UK's healthcare systems, driven by an ageing population and the demand to do more than ever before has presented unique workforce challenges. The recognition of the potential for Advanced Practice (AP) roles to deliver enhanced services, bringing higher-level skills closer to the often-complex patients that require them is undoubtedly part of the solution.

The publication of the NHS Long Term Plan, gave weight to this approach, specifically championing the case for the expansion of AP provision beyond nursing, creating a new wave of ACPs acting as senior decision makers.

The session aims to highlight the transformative impact of multi-professional collaboration in advancing practice and will showcase the successful integration of degree apprenticeships in shaping a skilled and diverse workforce.

Manchester Metropolitan University, a pioneer of degree apprenticeships and an Ofsted Outstanding provider, has delivered the ACP Masters Apprenticeship, since January 2019. Attendees can expect to hear insights into the benefits of this approach, supported by practical examples of delivery successes, and an in depth look at the exceptional outcomes for the learners who have embraced and thrived within this model.

Of the more than 120 graduates so far, over 80% have achieved distinctions and are recognised for their significant impact by their employers. A further 150 apprentices from eight healthcare professions will qualify by 2026.

We will also highlight our innovative delivery, informed by employers and led by a multidisciplinary team of experienced practicing healthcare professionals.

Our dynamic and flexible delivery expands the traditional educational landscape, supporting the real-world application of clinical skills through facilitated work-based learning, best structured within a committed and tripartite apprenticeship approach. World-leading simulation-based education also enables participants to refine their advanced practice skills in interactive, varied and realistic environments.

## Mis-matched expectations: Experiences of nurses returning to use their prescribing qualification

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**Background:** Research has identified that CPD for active prescribers to be a challenge, particularly identifying a lack of confidence and anxiety around prescribing. Anecdotally, for those who have not been actively using their qualification but choose to use or require to return to using it, support to regain their prescribing knowledge and competence to facilitate safe prescribing requires consideration.

**Objectives:** The aim of the research was to gain an insight into practitioners' experience of returning to prescribing in their clinical role following a period of non-activity of at least 12 months.

**Methods:** two email invitations were sent out to all non-medical prescribers, which included all qualified advanced practitioners, on one large health board database. this invited anyone on this list who had undertaken a break in their prescribing to learn more about the project via an information sheet and contacting the research team. Once informed consent was gained, an interview was arranged at a convenient time to the participant. all participants opted for an online interview on a virtual platform. Five semi-structured interviews were conducted and transcribed verbatim. a thematic approach to analysis was used and reflexivity utilised to minimise and acknowledge experiences and biases within the team. The interviews were all with nurses working in advanced roles. all five participants were nurses working in advanced roles.

**Results:** four main themes were identified. the experience of returning was influenced by;

1. the individual;
2. the clinical team;
3. the organisation and wider service.

there was a clear mis-match experienced between these three as a fourth theme.

Conclusion: returning to prescribing after a period of absence has been identified as requiring some attention and support.

Significance: Whilst there are elements which a prescriber are responsible for- the team and service impact on their return and experience and requires consideration.



1607

### **Enabling standardised approaches to the development of multi-professional advanced practice education and training, and effective implementation and governance of advanced practitioner roles**

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Background: 2017 was a landmark moment for advanced practice in England with the publication of the 2017 Multi-professional framework for advanced clinical practice in England, recognising the intrinsic multi-professional nature of advanced level practice. The phrase 'multi-professional' does not refer to the development of generic roles, it instead emphasises the inclusivity of all professions' abilities to work at advanced level practice; it recognises that every profession is different, and the Multi-professional framework does not expect that all will follow the same clinical content within advanced practice educational programmes, thus enabling areas of both shared and unique experience, knowledge, and skills to be simultaneously prized.

Objectives: To present an overview of the key work of the Centre for Advancing Practice and its regional Faculties for Advancing Practice in regularising and standardising approaches to multi-professional advanced practice education and training, and subsequent implementation and governance of advanced practitioner roles in healthcare provider organisations.

Approach: Overview presentation of the work of NHS England Workforce, Training and Education (formerly Health Education England) in establishing the national Centre for Advancing Practice and the seven regional Faculties for Advancing Practice.

Key learnings: The Centre for Advancing Practice supports the quality assurance of advanced practice education and training to enable regional work across the country to make advanced practice a recognisable, governable, and deployable embedded feature of healthcare provision that is reliably factored into workforce planning. The Centre promotes transparency in understanding equivalency of qualifications and skills for advanced practice, by ensuring advanced practitioner graduates of accredited programmes have similar outcomes for demonstrating the capabilities of the Multi-professional framework.

Significance (Impact and Reach): Through their education quality assurance processes the Centre and regional Faculties have been standardising approaches to multi-professional advanced practice education and training to ensure efficiency and effectiveness in NHS investments for advanced practice.



1619

### **RCN Professional framework for nursing: defining levels of nursing for the UK**

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<sup>1</sup>Royal College of Nursing, United Kingdom

Background: The UK professional body for nursing is creating an overarching professional framework for nursing that includes all settings.

Objectives: This programme has included an update to our definition of nursing and principles, as well as a new digital resource that will set out the levels of nursing including updated standards for advanced level nursing as well as standards for enhanced and consultant levels. UK career frameworks from all settings will be brought together to show the opportunities within the nursing profession.

Approach: This programme of work has been led by the organisations Professional Nursing Committee and co-created with a wide range of members and fellows.

Key learnings or results: Over the past couple of decades the nursing profession has changed significantly and we have reflected this in the updated Definition of Nursing. The update to the advanced level standards has reflected the

recognition that nurses work at this level across a wide range of roles. There has been collaboration with members who have led country specific multi-professional frameworks to develop definitions and standards for nurses who practice at enhanced and consultant levels.

Conclusions: This session will share the journey of this programme and the outputs that have been published. The work will be of interest to nurses within the UK across all settings as well as those globally as we will share our journey and learning.

Significance: This programme has developed the first UK Professional framework for nursing, which is expected to bring career frameworks together and show a clearer career pathway. It has set out the opportunities for nurses and unifying the language for the levels of nursing. We expect this will support retention and recruitment of the nursing workforce as well as supporting the call for staffing for safe and effective care and fair pay.



## 1.6 Advancements in Digital Health and Technology for Enhanced APN Practice

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### Does the Use of Augmented Reality Enhance the Learning Effectiveness of Nurse Practitioners?

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**Introduction:** Advanced Practice Nurses (APNs) are essential in healthcare, providing direct patient care and patient-centered services. In Taiwan, nurses adhere to standards, engaging in activities like medical inquiries, assessments, and differential diagnosis. Clinical reasoning and critical thinking, honed through education and exposure, are vital. Emphasizing critical thinking over outcomes is crucial. Traditional learning has limitations, but Augmented Reality (AR) learning, with reflection, fosters clinical competence. Anticipated benefits include improving patient safety and elevating nursing care quality.

**Methods:** Utilizing keywords "Advanced Practice Nurse training" and "Augmented Reality learning," a systematic search covered evidence-based literature databases (PubMed, Cochrane Library, CINAHL, and Airiti) from 2019 to 2023. Exclusion criteria were applied to select five systematic literature reviews for comprehensive analysis.

**Results:** The literature consistently highlights augmented reality as a motivational and stimulating learning approach, positively impacting student attitudes and learning motivation. Given the pivotal role of learning motivation in determining student outcomes, this aspect holds particular significance. Additionally, augmented reality is recognized for promoting independent learning and enhancing students' autonomy.

**Conclusions:** Considering the early stage of scientific evidence, caution is advised before strongly advocating for augmented reality integration into nursing education. Technology serves as a valuable educational aid but cannot fully replace traditional methods. Technological tool efficacy depends on student proficiency, predefined training objectives, and, crucially, fostering students' autonomous learning. Successful clinical education represents the culmination of professional healthcare training, poised to enhance students' clinical competence, contributing to improved healthcare quality and patient safety.



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### Advancing Nurse Practitioner Education and Practice through the Use of Virtual Reality and Screen-Based Simulation

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**Background:** Advanced Practice Registered Nurses (APRNs) must obtain a complete history and conduct an appropriate physical assessment to determine accurate diagnoses and interventions. Learning these skills for patient populations such as obstetrics and pediatrics may be challenging due to simulation experience regulations and exposure in clinical settings. Consequently, APRN students may not develop proficient and comprehensive assessment skills in these patient populations.

**Objectives:** The objective of this project was to evaluate the effectiveness of virtual reality (VR) and screen-based simulation experiences in enhancing assessment and diagnostic skills for APRN students.

**Methods:** APRN students had the opportunity to utilize VR to practice obstetric assessment techniques on a virtual patient in the Advanced Health Assessment course. In addition, the students participated in screen-based simulations throughout their first practicum course with virtual obstetric and pediatric patients. Students were able to ask questions, perform an examination, and establish differential diagnoses when participating in the screen-based simulations.

**Key results:** Students overwhelmingly reported the experiences were beneficial to their learning. The use of VR within the simulation center enabled students to practice advanced assessment skills in a safe environment while building confidence in their skills. Students reported the screen-based simulations to be equally effective as face-to-face simulations and traditional clinical settings in meeting their learning needs.

**Conclusion:** VR and screen-based simulations can enhance assessment skills for populations that students may have limited access to during on-campus clinical and their initial face-to-face clinical rotations. These modalities allow students to learn assessment skills on unique patient populations in a safe environment.

Significance: Technology can improve skills and confidence among APRN students. In the same way, practicing APRNs can utilize advancements in technology to enhance their practice, refresh skills, or validate skills not utilized routinely in their practice setting.



1560

### **Remote Patient Monitoring (RPM): Successful Integration into Nurse Practitioner Educational Programs**

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Background: Remote Patient Monitoring (RPM) is an emerging health care technology to address patient health care needs. Health care providers have identified the benefits of RPM including: continuous patient monitoring, enhancing patient self-management, early detection of patient deterioration and reduce unnecessary clinic visits (Serrano et al., 2023). RPM can be used successfully with multiple health conditions including hospital at home (Whitehead & Conley, 2023).

Objectives: To describe a plan for effectively implementing RPM into a nurse practitioner (NP) educational program. To discuss specific steps to implement RPM into NP curriculum

Methods/Approach: Steps and collaboration to implement RPM into an NP education program. Identification of clinical and patient scenarios amenable to teaching RPM. Description of simulation staff and faculty roles. Description of interprofessional learning opportunities with RPM.

Key learnings or results: Implementation of RPM requires careful planning, partnership with industry and simulation center, technology orientation, faculty development, faculty champion, and development of curricular cases.

Conclusion: NP students reported that RPM is a successful health care strategy and identified additional clinical cases to utilize. Faculty designed effective teaching strategies and curricular cases for implementation into RPM education.

Significance (Impact and Reach): Nurse practitioners and educators need to learn about advancements in digital health such as RPM to enhance patient care and improve patient outcomes.



1531

### **Integrating Digital Health and Social Determinants of Health into NP Education**

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Background: The Nurse Practitioner Technology Enhanced Community Health (NP-TECH) is a multi-modal educational program that prepares nurse practitioner (NP) students to integrate digital health technologies, telehealth and social determinants of health (SDOH) to improve care for underserved communities.

Objective: To describe the program and evaluation findings. Methods: The NP-TECH participants completed four types of learning activities:

- eLearning modules on SDOH, caring for the rural and urban underserved, telehealth, telehealth policy, and digital health technologies.
- Virtual flipped-classroom interactive webinars incorporating case studies from their clinical experiences that applied SDOH and active learning activities to develop digital healthcare abilities.
- Standardized patient simulations to practice and receive feedback on telehealth, SDOH and interviewing skills.
- Individualized coaching to promote work-life balance, self-care and transition from RN to NP. We enrolled a diverse group of NP students in their final clinical year and evaluated the program through student surveys, quizzes, and SP ratings of telehealth simulations.

Results: Sixty-four students completed the program over four years. The scholars' average quiz scores exceeded the benchmark of 80%. Survey findings indicated the majority of respondents believed the learning modules increased their knowledge of how to apply SDOH and digital health technologies to clinical practice and that the simulations helped prepare them to deliver telehealthcare in the future. All respondents thought the SP and faculty feedback was valuable. Comments indicated that the scholars found peer-to-peer clinical case discussions highly applicable.

Conclusions: The NP-TECH program enabled students to integrate SDOH and use digital health technologies to improve care for people living in underserved communities.

Significance: The NP-TECH program is a novel approach to introducing the concepts of digital health and SDOH and provides NP students with the opportunity to apply and achieve competence in these skills.

1644

### **Safe Medication Administration: Assessing the Use of Immersive Virtual Reality for Competency Training of Advanced Practice Nurses**

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Background: Advanced Practice Nurses are individual practitioners and leaders of collaborative teams in practice settings where safe medication administration is a priority. Human error, interruptions in care, medication dispensing systems, and human factors contribute to medication errors that can negatively impact patient care outcomes. Immersive virtual reality has emerged as an innovative educational modality developed to train in a manner which can be consistently replicated. Such technology has the potential to promote vital clinical skill acquisition and competency when administering medications.

Objectives: Assessing the possibility of immersive virtual reality simulations to supplement educational or competency training of Advance Practice Nurses on safe medication administration.

Methods: An immersive virtual reality simulator was developed to teach safe practices during the ordering, preparing, and patient identification phases of medication administration. Initial training with the simulator among practicing nurses and nursing students offered a means to learn how the simulator realistically portrayed fundamental components of medication administration in an acute care setting. From a guided orientation to a training and subsequent testing mode, the simulator tracked the learner's actions during medication administration processes and provided feedback for the learner to gauge current level of competency.

Key Learnings or Results: Findings from initial training provide essential information to modify the simulator for future use by Advance Practice Nurses. The simulator offers a realistic environment that resembles the medication process and has the potential use for competency assessment.

Conclusion: As virtual reality modalities continue to evolve, nurse educators and practitioners have a unique opportunity to expand usefulness for delivery of education focused on maintaining competencies essential to safe medication administration.

Significance: Various factors have the potential to influence medication administration behavior practices of Advance Practice Nurses. Discovering how to optimize integration of immersive virtual reality into advanced practice curriculum and practice education is worthy.

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### **Impact of Telemedicine in NHS Lanarkshire Primary Care Urgent Care Team**

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Background: As a result of the COVID pandemic, healthcare practitioners supported social distancing recommendations by implementing telemedicine. The NHS Lanarkshire (NHSL) Primary Care Advanced Nurse Practitioner (ANP) Team developed a process to implement telemedicine while working within the Acute Respiratory Illness Centre. Staff competence was assured through direct supervision, mini clinical examinations, case note reviews and reviewing recorded telephone consultations. In November 2021, the NHSL Urgent Care Team (UCT) was created, where the ANP team provide support to General Practices (GP). Telephone consultations have now become a key aspect of the UCT. Following the end of the pandemic, telemedicine has become a mainstay of healthcare delivery. However, studies that examine the effectiveness of telemedicine have had mixed results. This is largely due to the communication skills of clinicians and the varying levels of health literacy among patients.

Objectives: The objective of this study is to obtain in-depth information regarding the effectiveness of telemedicine within the NHSL Primary Care UCT, including patient satisfaction.

Methods and Approach:

- Data collection with the UCT to determine patient outcomes.
- Patient feedback via questionnaires.

Key Learning and Results: Data was reviewed for a 4 week period, during this time 27% of telephone consultations required no further action, 63% generated an in person appointment and 10% generated home visits. Collation of patient feedback is ongoing, however, informal verbal feedback has been positive.

Conclusion: Evidence suggests that there is a place for telemedicine within NHSL's UCT, as this supports an improved patient journey and experience. The UCT releases GP time, increasing their capacity to focus on the most complex patients.

Impact/Reach: This improves the overall patient journey and ensures patients are seen in a timely manner when required.

The NHSL Urgent Care Team hope to expand this model to provide care a wider population within NHSL.





## 1.7 Multidisciplinary: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing & Investing in the APN Health Workforce

912

### Enhancing Consistency in Content Delivery and Evaluation: Strategies for APN/NP Education

**Dr Veronica Quattrini<sup>1</sup>, Dr Amanda Roesch<sup>1</sup>**

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**Background:** One of the fundamental principles of competency-based advanced practice nurse (APN) education is maintaining consistency in content delivery and evaluation. Therefore, strategies are necessary to ensure that teaching methods, learning activities, and evaluation approaches remain consistent in courses with multiple sections. Student feedback from an advanced health assessment (AHA) course highlighted inconsistencies, prompting a thorough reassessment and revision.

**Objectives:** This presentation aims to showcase strategies for enhancing consistency in content delivery and evaluation in APN education.

**Approach:** In AHA, multiple approaches were devised to promote consistency in teaching and evaluation. Individualized schedules for faculty and sections were implemented to ensure uniformity in learning activities. A teaching tool was introduced to foster consistency in clinical judgment skills development. Pre-semester faculty briefings and a student chat facilitated consistent messaging. Grading guides for clinical notes ensured standardized evaluation of clinical documentation, while video exemplars and faculty grading guides targeted uniformity in the assessment of physical examination skills. The responsibility for grading high-stakes full physical examinations and objective structured clinical examinations was shifted from faculty to standardized patients.

**Results:** Utilization of these tools and strategies led to improved student surveys and increased faculty engagement, resulting in significant improvements in high-stakes evaluations through consistent preparation. Prior to the implementation of grading guides, there were significant discrepancies in grades for clinical notes across sections ( $p = .016$ ), indicating a lack of standardization. However, following the implementation of the guides, no significant differences were observed between sections ( $p = .385$ ), thus establishing standardization in the evaluation of this critical competency.

**Conclusion:** Equipping faculty with essential tools ensures consistency in educating and evaluating APN students, which is paramount for the success of competency-based education.

**Significance:** These strategies can be adapted by other institutions to enhance consistency in content delivery and evaluation, thereby benefiting APN education overall.



1125

### Introduction of the candidate Advanced Nurse Practitioner (cANP) role in Colorectal Cancer Family History

**Mary Forry<sup>1</sup>, Janette Hanway<sup>1</sup>, Caroline Fogarty<sup>1</sup>, Fiona McNally<sup>1</sup>, Amy Kenny<sup>1</sup>, Prof John Burke<sup>1</sup>, Niamh McCawley<sup>1</sup>, Dr Helen Barrett<sup>1</sup>, Prof Deborah McNamara<sup>1</sup>**

<sup>1</sup>Beaumont Hospital, Dublin, Ireland

**Background:** As part of the National Cancer Control Programme's (NCCP) plan to further develop the Programme for Hereditary Cancers a cANP was appointed.

**Objectives:** The NCCP Advisory Group for Hereditary Cancer propose the ANP ensures clinical follow-up of those with an identified inherited cancer predisposition including investigations and pre and post risk reducing surgery. The ANP will also be responsible for the development of pathways to supportive care. They will be source of advice and education in relation to family risk assessment and pretest counselling and will ensure access to specialist genetic services as required.

**Methods:** The Winpath laboratory system was interrogated using the terms Lynch Syndrome (LS) and Family Adenomatous Polyposis (FAP) from January 2020 to July 2022. 31 results for LS were and returned and 22 for FAP.

**Results:** Review of medical records revealed that timing of referrals for genetic testing varied across services (colorectal, gastroenterology, oncology, dermatology and ear nose and throat), with waiting times for testing of up to 18 months. While endoscopic surveillance was booked in keeping with published guidelines, the challenges of scheduling this were noted.

Conclusion: Early diagnosis of LS and FAP leads to timely preventative surgeries enhanced survival. cANP services will be developed as per the NCCP Framework for Hereditary Cancer Services and National Genetics and Genomics Strategy

1332

**Is defining advanced practice as a level of practice a help or a hinderance when considering advanced practice regulation?**

**Dr Helen Rushforth**<sup>1</sup>

<sup>1</sup>University of Southampton, Southampton, United Kingdom

Background: UK Advanced Practice is typically described as a level of practice, rather than a specific role. This inclusive perspective has enabled multi-professional perspectives in advanced practice to thrive. However, with the potential for future regulation firmly on the current NMC agenda, this paper contests that continuing to view advanced practice as a level of practice may be problematic.

Objectives/Approach/Learning: The paper suggests that viewing advanced practice as a level of practice is more akin to viewing it as 'expert practice' - an important pinnacle of any profession arising from career evolution, but not of itself requiring regulation. Conversely, it argues that to view an 'advanced practitioner' as a specific role, one which invariably incorporates elements of traditional medical practice, makes a much stronger case for regulation. This perspective arises from growing recognition of the 'latent risk' within advanced practice, which comes in large part from the clinical pillar, and in particular from advanced health assessment skills, diagnosis, interpretation of investigations, and pharmacological/ therapeutic interventions (Nuffield 2023). These are skills which, prescribing excepted, currently have no mandatory educational requirements or assessment standards for UK advanced practitioners.

Conclusion/Significance: This perspective doesn't in any way deny the considerable 'added value' advanced practitioners bring to their role from within and beyond their own professions. However, it argues that by containing advanced practice regulation/title protection to roles which have particular advanced clinical skills at their core, regulation becomes proportionate, realistic and justifiable in its overarching goal of public protection. Conversely, continuing to view advanced practice as a level of practice comes with real risk i.e. that those making the ultimate decisions about regulation will once again determine, as they did over a decade ago, that advanced practice is a natural evolution of practice not requiring or justifying the complexity and cost of regulatory reform.

1339

**Minimal Standards for Certification and Specialization of APN in Switzerland**

**Prof Romy Mahrer-Imhof**<sup>1</sup>, Roswitha Koch

<sup>1</sup>Nursing Science & Care Ltd., Basel, Switzerland, <sup>2</sup>APN-CH: the Swiss Regulator, Bern, Switzerland

Background: Swiss institutions granted 1000 MscN degrees within the last two decades. A 2022 survey showed that 60 % work as APN in clinical practice with different patient populations and in different setting. Initially generic APN programs developed in all regions of Switzerland and differentiated over time in programs preparing CNS or NP. However, neither a common trunk (core courses) for all APNs nor the requirements for specific roles have been formulated.

Objectives: To developed requirements for specializations and certification capturing the skills, knowledge base and role of registered APNs was needed to influence the recent changes in health care, and the political environment. Therefore, a project to harmonize the educational and clinical preparation for the APN role(s) and specializations has been started in 2023 by the nursing stakeholders.

Methods: Based on recent Swiss working papers, international literature, and the regulatory framework of APN-CH: the Swiss Regulator, the structural requirements for educational programs and the internship in clinical practice for certification as APN with role specification, population focus, and medical speciality have been developed.

Results: A common trunk with core courses for all APN, containing courses 1) to deepen and expand the knowledge in 3Ps, illness experience and coaching and guidance of patients and families, ethical decision making 2) to acquire skill in leadership, interprofessional collaboration and act as a change agent and 3) enhance scientific and implementation knowledge and skill to provide evidence-based practice have been defined. An internship of a year (1800 hours) and further structured education prepares the APN for their specific role, population, and speciality.

Conclusion: A structure has been developed that allows further steps in consenting on entrustable professional activities for specific roles of APNs and the requirement for internships.

Significance: The presentation provides insights in the development of guidelines for APN education and practice.



1592

## **Advancing The Nurse Practitioner (NP) Role in Sub-Saharan Africa Through Faculty Education and Development. Addressing Roadblocks and Innovations**

**Dr Jane Blood-siegfried**<sup>1</sup>

<sup>1</sup>EmpowerNurse- Africa, Durham, United States

Background: Nurse Practitioners have been identified as a workforce that can address health care disparities and Sustainable Developmental Goals (SDG's) in low- and middle-income countries. Growing the advanced NP role requires innovative ways to educate a cadre of faculty to teach in these programs. Many countries require a doctoral degree as a nurse practitioner to teach at the master's level.

Roadblocks in Sub-Saharan Africa:

1. Very few doctorly prepared nurse practitioners available to teach.
2. Most practicing nurses have a certificate or diploma degree. Fewer nurses have a BSc. Bridge programs can take many years.
3. Role development at the BSc vs the MSc should be considered depending on the resources of the country.

Objectives: Define the roadblocks for developing a cadre of nurse practitioner faculty and discuss the options for resolution.

Methods or Approach:

1. Potential ways to improve and promote nurse practitioner faculty.
2. A resource for finding potential funding opportunities.
3. Grass roots non-profit funding sources
4. Private funding
5. Governmental resources and programs
6. African Doctoral programs

Key learnings or results:

1. Doctoral education is a very slow process.
2. Doctoral education is expensive.
3. BSc for NP education? How to decide.

Conclusion: We will discuss how to support and fund the resources for advancing nursing roles and practice. Funding is difficult to find and education in the United States and Europe can be very expensive, even with scholarships and work study. Especially for the large numbers of faculty required for a NP program.

Significance (Impact and Reach): Without additional funding resources the nurse practitioner role will be slow to develop in Africa, especially in rural areas. Considering the importance of the NP role in meeting SDG's it is critical that we look for ways to improve resources and minimize roadblocks.



1294

## **Improved Confidence, Competence, and Knowledge in Advanced Practice Nurse Clinicians Following Participation in Infant Motor Development Course**

**Amy Manion**<sup>1</sup>, Dr Nina Alfieri, Emily Golbeck

<sup>1</sup>Rush University, Chicago, United States

Background: Atypical motor development may manifest as early as the first 6 months of life. Early referral to therapeutic services can improve long-term outcomes by leveraging neuroplasticity during infancy. Yet, training programs and medical education initiatives infrequently focus on motor development during early infancy.

Objective: To measure APN clinicians' confidence and competence in screening and identifying atypical motor development in infants 0–6 months old, before and after completing a novel online curriculum.

Methods: A multidisciplinary team including experts in pediatric primary care, neuromuscular medicine, early intervention, and physical therapy developed an online curriculum with evidence-based guidance, interviews, real-life footage and a novel four-position exam sequence for screening and identifying atypical motor patterns during well child visits ≤6 months. Participants completed a self-assessment of confidence and knowledge, comprised of 11 questions

about risk factors, red flags and developmental milestones before and after participating in the course. Paired t-tests were used to compare pre-versus post-course scores.

Results: Overall, 23 practicing APNs and 19 trainee APNs completed the course. Both groups demonstrated increases in their mean proportion of correct answers to knowledge questions, rising from 41% to 51% (practicing APNs) and 33% to 56% (trainee APNs). We observed shifts toward greater confidence across practicing APNs and trainees for all infant ages following completion of the course.

Conclusion: This novel course teaching assessment of atypical motor development in infants increased the knowledge, competence and confidence of practicing and training APN clinicians. This easily scalable course can be offered more broadly to clinicians who can intervene to address atypical motor development early in infancy. Changes in diagnosis and referral patterns should be examined for long-term outcomes that may result from participation in this course.



## 2.1 Clinical Workshop: Managing clinical cases in acute care settings: The hospitalist nurse practitioner

1258

### **Dr Kimone Reid**<sup>1</sup>

<sup>1</sup>Cleveland Clinic Martin Health, United States

**Background:** Nurse practitioners (NPs) are increasingly employed by acute care hospitals and hospital medicine groups in the United States to care for hospitalized patients. Increasing patient complexity, workforce shortages and the need to meet quality metrics are driving change in models of practice in caring for hospitalized patients. Altogether, this has burgeoned the rise of the hospitalist NP.

**Importance:** With the increase use of NPs in hospital medicine (hospitalists), it behooves us, to get a head of this trend and prepare future and current NPs to meet this demand. Limited international studies exist on the use of the hospitalist NP and day to day clinical practice. Exposing an international audience to this fast-growing role is pivotal to increase awareness and shape advance practice nursing policy and education. Thus, this workshop will demonstrate the utilization of NPs in hospital medicine in managing acutely-ill patients using a case-based approach.

#### **Purpose:**

1. Provide exemplars of hospitalist NP clinical practice.
2. Illustrate the type of knowledge and skills required by hospitalist NPs.
3. Provide clinical cases and demonstrate how to manage these cases.
4. Educate NPs on diagnostic reasoning.

#### **Learning objectives:**

1. Discuss the diagnosis and management of acute conditions.
2. Identify gaps in clinical practice.
3. Develop critical thinking and diagnostic reasoning skills.
4. Apply current evidence in patient care delivery.
5. Demonstrate the NP role in hospital medicine.

**Methods:** A case-based approach will be utilized to demonstrate the capabilities of NPs in hospital settings and how to practically manage clinical cases in the hospital, particularly undiagnosed cases. Audience interaction through discussion questions will be utilized to engender critical thinking. Through the case studies presented, the audience will have review of medical conditions, ECG, diagnostic imaging, pathophysiology and pharmacology applicable to each case.

#### **How the learning objectives will be achieved:**

1. Presentation of background, importance and objectives.
2. Discussion of clinical cases and management.
3. Discussion on differential diagnosis and preventing diagnostic errors.
4. Utilize PowerPoint, ECGs, clinical practice guidelines, and imaging.

#### **Key skills and take away:**

1. Critical thinking and diagnostic reasoning skills.
2. Work up of clinical conditions like chest pain.



## 2.2 Symposium: Conquering the Fear of Beginning Research: Tackling Research Questions, Methods, and Ethics for Early-Career Advanced Practice Nurses

NPAPN24014

Convenor: TBC

**Purpose:** The purpose of this symposium is twofold. First, to provide APNs with the basic skills and knowledge about ethical considerations and guidelines to follow in research, and then formulating methodologically sound research questions. Secondly, to inspire APNs to apply these research skills in their clinical practice, thereby enhancing their capacity for critical thinking and decision-making based on evidence.

**Objective:** This symposium aims to lay the groundwork for APNs to contribute to their practice by conducting research, fostering their professional development and the advancement of healthcare.

**Rationale:** Recognizing variations and/or gaps in advanced practice nursing preparatory education where research processes are often under-emphasized, this symposium targets new Advanced Practice Nurses (APNs) interested in research and will provide ethical guidelines that are the precursor to any research. The challenge new researchers have in formulating research questions and selecting the proper methodology will also be addressed. This will give the new researcher foundation skills to begin research to drive evidence-based practice.

**Summary:** This symposium is important as it is well aligned with the current emphasis on integrating evidence-based practice in the nursing profession. As APNs are central to healthcare delivery, equipping them with foundational research skills is essential for enhancing patients, nurses, organisation and health system outcomes. This introduction to research principles is crucial in fostering a culture of inquiry and continuous learning among APNs, which is vital for identifying clinical issues and identifying evidence to address them.

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### Transitioning from Clinical Inquiry to Research: Crafting Effective Research Questions and Choosing the Right Methodological Approach

**Brigitte Woo<sup>1</sup>, Salma Almukhaini<sup>2</sup>, Maria Consuelo Cerón Mackay<sup>3,4,5</sup>, Denise Bryant-Lukosius<sup>5</sup>, Rose Collard<sup>6,7</sup>**

<sup>1</sup>Alice Lee Centre for Nursing Studies, National University of Singapore, Singapore, <sup>2</sup>Sultan Qaboos University, College of Nursing, Oman, <sup>3</sup>School of Nursing McMaster University, Hamilton, Ontario, Canada, <sup>4</sup>School of Nursing, Universidad de los Andes, Chile, <sup>5</sup>School of Nursing and the Canadian Centre for Advanced Practice Nursing Research, McMaster University, Hamilton, Ontario, Canada, <sup>6</sup>Radboud University Medical Center, Department of Psychiatry, Nijmegen, The Netherlands, <sup>7</sup>HAN University of Applied Sciences, Master of Advanced Nursing Practice, Nijmegen, The Netherlands

**Background:** Recognising variations and/or gaps in APN preparatory education where research processes are often under-emphasised, this presentation aims to introduce foundational research skills. Given the critical role of APNs in patient care, and the importance of integrating research and evidence-based practice in their role, the presentation is structured to provide an introduction to transferring APNs' clinical inquiries to research.

**Objectives:** The primary goals are to equip APNs with skills for identifying clinical inquiries, formulating methodologically sound research questions, critiquing available evidence, and identifying the suitable research methodology to address them. This will enhance their critical thinking, decision-making, and integration of evidence into practice.

**Methods or Approach:** The symposium will feature a blend of interactive discussions, practical group activities, and informative mini-lectures. Participants will engage in formulating research questions for clinical scenarios and explore suitable research methodologies. This format ensures attendees develop skills in creating relevant, methodologically sound research questions and choosing appropriate research approaches for clinical inquiries.

**Key learnings:** Participants will learn to develop clear, concise research questions and acquire the skills to select suitable research approaches and designs for answering these questions.

**Conclusion:** This presentation empowers APNs with foundational research skills, promoting evidence-based practice and ongoing learning.

**Significance:** This presentation is important as it is well aligned with the current emphasis on integrating evidence-based and knowledge enhancing practice in the nursing profession. As APNs are central to healthcare delivery, equipping them with foundational research skills is essential for enhancing patients, nurses, organisation and health system outcomes. This introduction to research principles is crucial in fostering a culture of inquiry and continuous learning among APNs, which is vital for identifying clinical issues and identifying evidence to address them.

## **Moving from clinical inquiries to research: ethical considerations, guidelines, and regulation & practical strategies**

**Caryn Scheinberg Andrews**<sup>1</sup>, Beatriz Rosana Gonçalves de Oliveira Toso<sup>2</sup>, **Maria Kidner**<sup>3</sup>

<sup>1</sup>Henrietta Szold School of Nursing at the Faculty of Medicine Hebrew University Jerusalem Israel, <sup>2</sup>Biosciences and Health Post-doctorate Program at the Cascavel campus, Western Paraná State University, <sup>3</sup>Team Heart senior consultant, AANP Board of Directors, Rotary International, LEAP Leadership LLC

Background: As the new NPs develop maturity in their clinical practice they begin to formulate the notion of using their own research for providing evidence-based practice. As a result, they feel the need to conduct research, but lack the knowledge of the research structure needed for good ethical research. Recognizing variations and/or gaps in advanced practice nursing preparatory education where research processes are often under-emphasized, this workshop targets new Advanced Practice Nurses (APNs) researchers to introduce ethical guidelines that are the precursor to any research.

Objectives:

1. To increase understanding of ethics in research.
2. To provide APNs with skills for conducting ethical research
3. To provide an overview of the steps for following good ethics guidelines.
4. To understand ethical guidelines and how to apply them to research practice.

Methods or approach: The symposium will feature a combination of didactic teaching, case discussions, and open questions and discussion format regarding research ethics in research.

Key learnings: Participants will learn what steps/ regulations such as CITI or CGP are needed before and during the conduct of research for both the study and the researchers themselves, and subsequent reporting guidelines and the use of research protocols.

Conclusion: This presentation empowers APNs with foundational research skills regarding ethics, how to establish themselves as a researcher with ethics certification, and then promoting evidence-based research regarding APN clinical research.

Significance: Given the critical role of APNs in patient care, and the importance of integrating research and evidence-based practice in their role, the presentation is structured to provide an overview of how to generate research with a foundation of good ethics.



## 2.3 Symposium: Global Partnership for Advanced Practice Nursing Roles in the Primary Health Care, Lower-Resource Context of Liberia, West Africa

NPAPN24019

**Convenor:** Dr Dorcas Elisabeth Kunkel  
Mother Patern College of Health Sciences, Monrovia, Liberia

**Purpose:** This two-part symposium aligns with the key conference themes: Investing in the Advanced Practice Nurse Health Workforce, Educational and Regulatory Landscapes Shaping Advanced Practice Nursing, and Advanced Practice Nurse's Role in Shaping a Healthier, More Equitable World. Join the symposium leaders as they share insights on exploring, defining, and planning new advanced practice nursing (APN) roles in a primary health care (PHC), lower-resource context in West Africa.

**Objective:** There are no advanced practice nurse (APN) or nurse practitioner (NP) programs at the graduate level of education in Liberia as of 2024. There is only one medical school in the country struggling to produce a minimal number of well-prepared physicians for practice in Liberia. Analysis of Liberia country-wide needs assessments and public data provided there are insufficient qualified primary care providers (PCPs) to meet the health care needs of the 5.4 million population. APN programs that educate NPs, specifically Family Nurse Practitioners (FNPs) could increase access to consistent care across the lifespan for individuals and families in rural and urban settings.

**Rationale:** FNPs can provide quality care equal to or better than medical providers. NP education can be lower cost to health systems than producing medical providers. There are several existing graduate schools of nursing with programs specializing in ANP nursing leadership and nursing education which could expand to APN programs with appropriate planning, support, faculty and resources. We have utilized the Participatory, Evidence-Informed, and Patient-Centered Process (PEPPA) as a framework for this new context relevant APN role development, implementation and evaluation initiative.

**Summary:** In this symposium we will share the collaborative efforts, evidence base, global partnerships, and findings that have promoted this journey so far and describe the next steps towards reaching the ultimate goal of improving access to PCPs through incorporation of APN /FNPs in Liberia.

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### Shaping Context-Relevant Advanced Practice Nursing Role Descriptions and Core Competencies for Graduate Level Nurse Practitioner Education and Practice in Liberia

**Dr Dorcas Elisabeth Kunkel**<sup>1</sup>, Dr Edwin Beyan<sup>2</sup>, Cecelia C. Kpangbala-Flomo<sup>3</sup>, Diana T. Sarteh<sup>4</sup>

<sup>1</sup>University of Minnesota, Minneapolis, USA, <sup>2</sup>Mother Patern College of Health Sciences, Monrovia, Liberia, <sup>3</sup>Liberian Board for Nursing and Midwifery, Monrovia, Republic of Liberia, <sup>4</sup>Ministry of Health, Monrovia, Republic of Liberia

**Background:** In 2020, the International Council of Nurses (ICN) issued guidelines for graduate level education at a minimum of a master's degree for Advanced Nursing Practice (ANP) with curricula and roles shaped for the context in which APNs will be credentialed to practice. The Participatory, Evidence-Informed, and Patient-Centered Process (PEPPA) is used to guide this initiative. To gather stakeholder perspectives, a descriptive multimethod study assessed the relevancy of an existing set of APN/NP core competencies for the training and practice of FNPs in Liberia. A context relevant description and scope of practice for the proposed role was created.

**Objectives:**

The participant will:

- 1 Describe the facilitators and hindrances for developing context relevant APN, FNP education in one lower resource setting in West Africa.
- 2 Discuss insights gained from alignment of APN /FNP core curricula with the unique PC needs of Liberia's population and PHC system.

**Methods:** A total of 50 invited stakeholder/participants attended half day workshops to learn about ANP concepts. Focus group discussions captured thoughts and perceptions while an electronic Qualtrics survey captured ratings of a set of existing APN/NP core competencies for relevancy and use in the context of Liberia.

**Results:** Data collection completed on January 27, 2024. Results will be presented as summary statistics with frequencies, proportions and percentages in charts and graphs. To qualify as a context relevant competency at least 70% (cut off point) of the responses must be "relevant". Additionally, an itemized analysis will be performed for the competencies that do not achieve 70%. Analysis of the qualitative data will be completed using a software called NVivo with researchers reporting results as clusters, concepts and/or themes.

**Conclusions:** A context relevant role description and scope of practice for the FNP and a set of core competencies for the training and practice of APN/NPs was produced.



Significance: Stakeholders may use this information to help make decisions and to allocate scarce resources for more targeted, context relevant APN/FNP curricula to create a new cadre of PCPs in Liberia.



## **Shaping Competent Advanced Practice Nursing in Liberia through Regulatory and Primary Health Care Systems Oversight**

**Cecelia C. Kpangbala-Flomo<sup>1</sup>, Diana T. Sarteh<sup>2</sup>, Dr Edwin Beyan<sup>3</sup>, Dr Dorcas Elisabeth Kunkel<sup>4</sup>**

<sup>1</sup>Liberian Board for Nursing and Midwifery, Monrovia, Liberia, <sup>2</sup>Ministry of Health, Monrovia, Republic of Liberia, <sup>3</sup>Mother Patern College of Health Sciences, Monrovia, Liberia, <sup>4</sup>University of Minnesota, School of Nursing, Minneapolis, Minnesota, USA

Background: This session focuses on regulatory and systems level oversight for development of APN/FNP as a new primary care provider (PCP) role within the primary health care (PHC) system. Oversight by the Executive Registrar at the Liberian Board for Nursing and Midwifery (LBNM) and the Office of the Chief Nursing Officer (CNO) at the Ministry of Health (MOH) of Liberia assures the new nursing role is context relevant and graduate programs prepare FNP students with the competency and readiness to provide safe, quality primary care across the lifespan.

Objectives: The participant will:

1. Explore the systems oversight and the regulatory standards and requirements of degree granting graduate schools of nursing in Liberia for the assurance of safe, quality practice of APN/FNPs upon graduation.
2. Describe plans for the systematic evaluation of APN/FNP roles and education programs.

Approach: We describe the crucial role of regulatory and systems oversight on APN/FNP roles and the social and economic place of APN/FNPs within the PHC system. Certification of specially prepared NPs is discussed.

Key Learnings: A standard graduate level APN/FNP core curriculum, scope of practice, and evaluation plan is essential for regulation and accreditation of graduate level advanced nursing education programs and certification of specialty practice.

Conclusions: Regulation and accreditation of graduate level advanced nursing education programs and evaluation of those programs for the safety and quality care of patients in the health system is an essential step for advancing new models of care.

Significance: The LBNM regulatory body's oversight and accreditation of graduate programs will be strengthened. The CNO office at the MOH represents Liberia's nurses regionally and internationally and may demonstrate APN/FNP impact of new model of care on improving country-wide health goals.



## 2.4 The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing

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### **An exploration of the contribution of nursing expertise in consultations undertaken by Advanced Nurse Practitioners**

**Margaret Swankie<sup>1</sup>, Careen Mullen-McKay<sup>1</sup>**

1NHS Tayside, Dundee, United Kingdom

Background: In 2021 the Scottish Government indicated the requirement for Advanced Nurse Practitioners (ANPs) to have outcome measures demonstrating their role impact (Scottish Government 2021).

The value of ANPs working in Primary Care teams are often reported using measures relating to the tasks transferred from Doctors to ANPs; number of consultations, number of investigations requested or rates of hospital admission (Strachan et al 2021). However, Karimi-Shahanjarini et al (2019) reported that successful doctor-nurse substitution programmes relied on; respect, collaboration, clear role definition and good leadership.

A local service evaluation exploring ANP referrals has indicated frustration from ANPs who report their role as being poorly understood by many of their multi-disciplinary team members. What seems to be clear from this local evaluation is that ANPs report a lack of understanding of the value their nursing knowledge brings.

Objectives: To investigate and identify the nursing skills used during the consultations undertaken by ANPs in Primary Care.

Methods or Approach: From January 2024 to April 2024 the researchers will observe clinical consultations of ANPs in Primary Care settings, gathering evidence of the nursing skills used.

Key Learning/Results: The resulting findings will provide an overview of the nursing skills used during ANP consultations in Primary Care. The findings may provide the basis for meaningful, measureable metrics appropriate to ANPs.

Conclusion: The consultations and care provided by ANPs are currently measured using existing medical measures. The findings of this study will provide evidence of the range and value of nursing skills used to support patient care and management plans.

Significance: The impact of these findings will be valuable to all ANP teams working in primary care settings who are challenged by health boards to evidence their contribution to, what was a medical workload, rather than focussing on the core nursing skills which enhance patient experience.



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### **Return to Work After Breast Cancer: The Important Role of the Advanced Practice Nurse in the Interprofessional Process**

**Mirela Pashova<sup>1,2</sup>, Prof. Monica Bianchi<sup>1</sup>**

<sup>1</sup>Department of Business Economics, Health and Social Care, University of Applied Sciences and Arts of Southern Switzerland, Manno, Switzerland, <sup>2</sup>Nursing Department, AI Pagnolo, Sorengo, Switzerland

Background: The survival rate for women with breast cancer (BC) currently stands as the highest among all cancer types for women. The experience of BC poses a substantial challenge for women, and post-treatment, a critical concern often arises: the return to work (RTW). In the international literature, the Advanced Practice Nurse (APN) plays a vital role in the interprofessional care process, providing specialized assistance in different oncological pathways.

Objectives:

- To explore interprofessional interventions for sustaining RTW.
- To analyze the current nursing role within the interprofessional process.
- To define and evaluate the implementation of the APN role in the process.

Methods: Qualitative approach. Data collection through semi-structured interviews with breast cancer nurses participating in the RTW process in Canton Ticino from August 2022 to February 2023. Braun & Clark's thematic analysis using Nvivo 12® software.

Results: The thematic analysis identified 19 themes organized into four macro-themes: nurses' interventions in patients' care, nursing perspectives on RTW, nursing interventions in RTW, and interprofessional collaboration in RTW. Starting from the needs of women in the RTW process and the nurses' perspectives on their role in the interprofessional team

and on the development of their competencies, it was possible to define the role of the APN in the entire process as well as to plan its implementation.

Conclusion: Defining the role of the APN in the RTW process allows for the identification of the implementation pathway in the interprofessional team to improve the overall care of women and in particular, to make the RTW process more effective.

Significance: In the delicate context of surviving and returning to a life like to pre-cancer, the role of the APN as a professional part of the interprofessional team proves to be essential and requires further exploration of implementation strategies.



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### **Integrating an Advanced Practice Nurse into an interprofessional healthcare team in the hospital: a systematic review**

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Background: Healthcare professions have their own professional cultures that can be barriers for effective interprofessional collaboration. The introduction of a new professional role into an existing team, such as Advanced Practice Nurses (APN) with their specific values and beliefs, can significantly irritate individual perspectives, relationships and team structures. Unclear roles among team members can lead to overlaps and redundancies in tasks and potentially result in resistance, competition and frustration. The successful integration of an APN requires professional reassessment and reflection of the roles and positions within the team.

Objective: The aim of this contribution is to present the current state of international literature on the perspective of the interprofessional team and the views of its individual healthcare professions concerning the integration of an APN in the hospital.

Method: A protocol-based systematic review was conducted in accordance with the JBI methodology. PubMed, CINAHL and Web of Science were searched, supplemented by manual search. Hits were selected in a multi-stage screening process. These were analyzed descriptively and thematically.

Results: 37 of 1277 articles were included. Preliminary results indicate concerns about APN prior to its introduction, e.g. among non-academically qualified nurses. If the introduction is perceived as supportive in direct patient care, acceptance and recognition as a team member will increase. APN are then experienced by nurses and doctors as important contact persons who ensure consistency in the care and treatment process. At the same time, different expectations among healthcare professionals can also lead to continued concerns. This can have negative impacts and may lead to rejection of the role.

Conclusion: The results highlight the need for the health professionals to reflect their own expectations on the APN in everyday routines and negotiate these within the team.

Significance: Only successful integration will ensure that the potential of the APN can be fully exploited.



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### **Advanced Practice Nurses and Physician Assistants - two new and different job profiles for sustainable healthcare in Germany**

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Background: The research project "FAMOUS" (Case-based care of multimorbid patients in general practices by advanced practice nurses, APN) aims to implement APN care in primary care in Germany. In parallel to the development of APN, the implementation of Physician Assistants (PA) with Bachelor's degree is demanded by general practitioner boards to address the shortage of physicians. The demarcation of these new professional profiles are still unclear (Günther et al., 2019).

Objectives: This study aims to contrast the characteristics of qualification of APN and PA in Germany.

Methods: Design: document analysis  
Data collection: research in specific online databases and websites of German universities

Sample: 6 curricula of PA Bachelor's programmes (because of the German Medical Association's framework curriculum, data saturation was reached), 6 curricula of APN Master's programmes (= all APN study options in Germany)  
Data analysis: content analysis; inductive categorization with regard to the programmes' content and the intended competencies using MAXQDA in a multi-step categorization process.

Results: APNs study a variety of related sciences (e.g. nursing science, psychology) while PAs courses are focused on medicine and natural sciences. APNs are enabled to care independently for patients with complex needs. Physician Assistants are qualified to take on medical assisting activities.

Conclusion: APNs and PAs can help to distribute the various tasks in healthcare through a suitable skill and grade mix. Because the competencies of PA are limited it is necessary to also implement APNs to address the complex care needs and the shortage of physicians. It has to be considered that APN and PA are different professions, which cannot fulfill the same tasks or take on the same roles.

Significance: The document analysis shows that the goal of the German Medical Association to use PAs instead of APNs in primary care can hardly be achieved without a loss of quality.



## 2.5 Multidisciplinary: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience & Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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### Spirituality Brings Meaning to Life: Analysis of Graduate Student Reflections

**Dr Mary Ellen Roberts<sup>1</sup>, Dr Joyce Knestrick<sup>1</sup>**

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Background: In a graduate nurse practitioner program, students reflected on spirituality using journaling. In order to understand the students' meaning of spirituality, a qualitative analysis of the student journals were completed. Themes related to spirituality were developed to illicit the meaning of spirituality.

Objective: To analyze students personal beliefs of spirituality and how it relates to advanced practice nurses ability to care for the whole person in a global society.

Methods: In the course, students were provided empirical and theoretical evidence related to spirituality. Students were given information to reflect on the question related to the importance of spirituality as it relates to overall health and well-being. Several multidimensional facets of holistic health from a personal and spiritual perspective were explored. Utilizing the Augustine Spiritual Exercises and Bernard Lonergan's theory, students learn about the spiritual components of caring for patients. The students were asked open - ended questions about spirituality.

During the process of journaling, the students identified their personal core belief systems and values and explored cultural aspects of healing, spirituality, and ritual. Students were ask to reflect on spirituality as a component of nursing and in the advanced practice nurse role.

Key Learning: The themes illuminated include connectedness to spirituality, meaning and purpose of religious beliefs, hope, and a broadened perspective to care for others. The overarching theme is :” spirituality brings meaning to life”.

Conclusion: In conclusion, this analysis provided insight into the writings and thematic feelings of students over a 3-year period. Students' knowledge regarding the impact of spirituality on self and others are important skills for advanced practice nurses to care for the whole person in a global society.

Significance: This qualitative study illuminates the importance of spirituality in the students personal and professional life.



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### A CNS led Strategy Improving Serious Illness Conversations and a Palliative Approach to Care in a Canadian Health Authority

**Vicki Kennedy<sup>1</sup>**

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The Canadian annual death rate is increasing, with 90% dying from chronic illness. Most deaths occur in acute care with initial palliative consultations and referrals happening late in a person's disease process. Goals of Care conversations are infrequent, too late and of poor quality. Clinical Nurse Specialists, from Interior Health Authority (IHA), British Columbia created and implemented a knowledge translation strategy utilizing the Serious Illness Conversation Guide (SICG) workshops to support a palliative approach to care. As Master Facilitators, the CNSs facilitated SICG train the trainer workshops to build local teams and capacity. Engagement and collaboration with clinical operations teams and external partners, including faculty of undergraduate nursing schools, occurred to increase awareness and highlight the need for more, earlier and better serious illness conversations.

Since 2019 CNSs have supported over 83 SICG workshops, to over 1700 clinicians and students. Across IHA, four train the trainer workshops have resulted in 60 new SICG facilitators, including nursing school faculty. Quantitative and qualitative evaluation data from 340 participants of SICG workshops has demonstrated positive outcomes. When asked if the workshop content enhanced knowledge about serious illness conversations (SIC), 231 (67%) strongly agreed, 107 (31%) agreed, two were neutral and one disagreed (less than 1%). Sixty-three, (100% of participants in each workshop) reflected and identified motivation to change practice.

CNSs leading the SICG knowledge translation strategy to improve a palliative approach has resulted in an increase in clinician confidence and competence in having SIC, which when applied in practice will benefit people living with serious illness. It is imperative that spread, sustainability and the shift in clinician practice continue to be supported and monitored to adequately support an aging population.

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## Developing Advanced Practice Nursing in Mexico- building collaborative partnerships

**Prof Gerry Lee**<sup>1</sup>, Prof Gustavo Humberto Nigenda Lopez<sup>2</sup>, Prof Patricia Aristizabal<sup>2</sup>, Rosa A. Zarate-Grajales<sup>2</sup>

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Background: Advanced practice nursing (APN) has emerged as a safe and effective role to deliver healthcare. It is established in many countries whilst others are just beginning their journey. Work was undertaken between academics in the UK and Mexico between 2019 and 2021 as part of the Better Health Programme to identify the barriers and benefits to develop and deliver APN in Mexico. Through interviews with nurses in Mexico and a gap analysis, four major issues were identified that impacted APN development in Mexico: a) workforce issues, b) organizational and institutional and policy related gaps, c) regulatory and legal gaps, d) academic and education related gaps.

Objectives: Based on this previous collaboration, an intensive 6-week programme consisting of research, teaching and institutional development at Universidad Autónoma Metropolitana (UAM), Mexico was proposed and funded by UAM and will take place in mid-2024. The aim of the programme is to deliver and develop APN teaching and research in Mexico building on the previous joint collaboration.

Methods: UAM will host a visiting APN academic expert who will work collaboratively to create a draft for a national regulatory framework for APNs; map out the national standards in relation to proposed objectives for the APN curriculum, undertake research on evaluating APN in Mexico, provide teaching that includes lectures on comprehensive clinical assessment and pathophysiology to APN students and develop a protocol that would offer a formal standardised compulsory certification process.

Key learnings: This presentation will describe the teaching and learning undertaken as well as the research activities during the 6-week visit. Regulatory and policy development are key to successful development of the APN role.

Significance: The examination of APN in Mexico demonstrates that developing appropriate education and a professional standards are really important for APN roles and highlights the importance of international partnerships.

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## Development and implementation of a Patient Education Program for Parkinson's Disease: A pilot project initiated by an Advanced Parkinson Nurse Practitioner

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Background: Patient education programs in Parkinson's Disease (PEPPD) have emerged as integral components of comprehensive care strategies, yet there is no entirely distribution of these programs. The multi professional team at a neurodegenerative ward at an university hospital in Europe, aimed to design its own PEPPD, starting in march 2023.

Objectives: Identify existing patient education programs in in parkinson's disease and piloting it at a university hospital in Germany.

Methods or Approach: First relevant PEPPD issues were identified via systematic review. Second, patient- and symptom-orientated themes were collected in a multi-professional APN-initiated focus group. This process resulted in the development of a multi-stage PEPPD at a university hospital in Germany.

Key learnings or results: Findings indicate that well-designed patient education programs could contribute positively. The multi-stages program consisted of: introduction of the multiprofesional team, deep brain stimulation, physiotherapy, oral drug therapy, pump-therapy, swallow and speaking, bladder and bowel, Parkinson and the psyche.

Challenges in the implementation of patient education programs include accessibility, tailoring content to individual needs and sustaining long-term engagement. Ways of promotion of the PEPPD have to be chosen wisely as the target audience is hard to access. Limits consisted in the structural challenges, lack of engagement of the multiple professions and digital infrastructure.

Conclusion: Despite increased awareness, ongoing research and innovation in lifestyle recommendations, symptom knowledge and self-management still lack of systematic approaches from caregivers. Accessible, holistic and individual PEPPD should be adapted and continuously offered by caregivers. These programs could contribute to improve disease management, increased patient empowerment, and enhance overall quality of life.

Significance (Impact and Reach): This Pilot project describes the development and implementation of a PEPPD guided by an Advanced Parkinson Nurse. Further research could demonstrate insights in accessibility and tele-health programs for further reach.



## 2.6 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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### Uniting Global Insights for Advanced Practice Nursing Success-A Collaborative Series

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**Background:** The advanced practice nurse (APN) role is rapidly evolving, with over 40 countries implementing it to enhance healthcare access and equity. This person-centered model offers the potential for improved outcomes and cost-effectiveness. However, there is significant variability in educational standards, regulatory frameworks, and practice models related to the APN role in each country. Global collaboration among APNs and leaders is crucial for knowledge sharing, learning, and refining the role.

**Objective:** This international study investigates the effectiveness of a virtual speaker series as a platform for promoting global APN collaboration and knowledge exchange.

**Methods:** Starting January 2024, a monthly virtual series will feature diverse expert panels from over ten countries and global nursing organizations presenting on APN advances in their context. Thematic analysis of presentations and standardized post-evaluation surveys will be used to identify key themes and potential areas for shared learning and development.

**Key Learnings:** This study will contribute to understanding:

1. Unique country approaches: How distinct contexts shape APN education, regulation, and practice.
2. Collaborative opportunities: Identifying areas for shared learning and development across education, regulation, and practice models.
3. Evolving APN role: Insights into the future trajectory of the APN role based on global perspectives.

**Conclusion:** Collaborative knowledge sharing through the virtual series has the potential to significantly enhance the quality and reach of APN care by standardizing education and practice, increasing APN professional development, and improving advocacy for evidence-based policies and regulation.

**Significance:** This study will provide valuable insights into advancing the APN role through global collaboration, ultimately improving healthcare quality and access for patients worldwide.



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### Barriers and facilitators to nurse prescriptive authority implementation : a qualitative meta-synthesis

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**Background:** In response to strained healthcare resources and physician shortages, many countries have expanded the role of nurses by granting them prescribing authority, and ICN guidelines for nurse prescribing point to the fact that nurse prescribing is on the rise as an aspect of advances in nursing practice.

**Objective:** The purpose of this study is to investigate the barriers and facilitators affecting the implementation of nurse prescribing, and to provide a reference for the development of nurse prescribing in China.

**Methods:** A systematic search of PubMed, Web of Science, Embase, Cochrane Library, CINAHL, China Biomedical Literature Service System, China Knowledge Network, Wanfang Database, and Wikipedia was conducted to retrieve literature related to barriers and facilitators to implementation of nurses' prescriptive authority, with a timeframe of the construction of the database to November 22, 2023. Literature quality was evaluated using the 2016 edition of the Australian JBI Centre for Evidence-Based Health Care's qualitative research evaluation criteria, and information was extracted using the Consolidated Framework for Implementation Research (CFIR) using a pooled integration approach.

**Results:** A total of 14 articles were included in the literature, and 81 themes were extracted and grouped into 12 categories, yielding 2 integrative results: barriers to nurse prescriptive authority implementation included Policies & Laws, Local Attitudes, Structural Characteristics, Deliverer-Centeredness, Access to Knowledge & Information, Implementation Team Members, and Planning; and facilitators of nurse prescriptive authority implementation included Recipient-Centeredness, Available Resources, Capability, and Teaming.

**Conclusion:** Based on the results of the integration, it will help to develop a strategic plan to support and optimize nurse prescribing authority, which will inform the implementation of nurse prescribing authority.



Implication: Policymakers can use the results to explore pathways to bring nurse prescribing rights to fruition in their own national contexts.



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## **The Value of Advanced Practice Nurse in Promoting the Utilization and Integration of Medical Resources in Healthcare Consortium System**

**Jingpin Wang**<sup>1</sup>, Qun Wang<sup>2</sup>, Dr Mingzi Li<sup>3</sup>, Rongsong Tang<sup>1</sup>, Hongbo Chen<sup>1</sup>, Li Huang<sup>2</sup>, Dr Baohua Li<sup>1</sup>

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**Background:** Worldwide, there are still shortages and inequality of medical resources, challenges in the primary healthcare are more highlighted. In China, the government encourages tertiary hospitals to collaborate with primary healthcare organizations, and has developed the healthcare service delivery model called Healthcare Consortium System (HCS). The first Nurse Practitioners (NPs) in China were graduated in 2020 and now work in a tertiary hospital to explore the advanced practice.

**Objectives:** To investigate the role and impact of NPs outreach in primary care under the HCS.

**Approach:** This is a case report, summarized the practice of NPs in the community aspects from the administration management, practice scopes and positive impacts.

**Key learnings:** To promote the landing of NPs, the nursing department in a tertiary hospital built a special team, consisting of senior nursing management expert, clinical nurse specialist and NPs, to provide thorough support from the superior to grassroots. In the union mechanism of community and hospital, NPs provide care for patients with diabetes and/or high-risks, scoping from specialized assessment, complication screening, education, follow-up, appointment, referral, field health promotion and other services. NPs take on the roles as the initial detector, coordinator and solver of patients' health problems. NPs ensure patients have access to acquire high quality medical resources and improve their clinical treatment effects. And 84 patients under management by NPs expressed their trust and sincere recognition with 100% satisfactory rate.

**Conclusion:** NPs have shown a great potential in providing high quality healthcare and promoting equality and accessibility to healthcare resources in China. The emerging development of NPs requires the combined efforts of management, specialty and education professionals.

**Significance:** This model of NPs practice could be copied and extended in the HCS, not only benefit the low-resource communities, but also promote the development of the advanced nursing practice in China.



## 2.7 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### Development of entrustable professional activities (EPAs) for advanced practice nurses education

**Dr Wentao Zhou<sup>1</sup>**

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Background: Entrustable professional activity (EPA) framework has gained popularity within competency-based healthcare education programmes across disciplines, professions, and countries. As opposed to the traditional time-based approach, EPAs bridge the gaps between competency framework and clinical practice, however, limited information on nursing EPAs highlights a need to develop EPAs specific to graduate nursing education to promote patient safety and quality patient care.

Objectives: This paper described comprehensively the four-stage approach used to develop and pilot test a set of core EPAs for advanced practice nurse (APN) education.

Method: The four-stage approach used to develop and pilot the EPAs included: 1) team formation, 2) development of conceptual framework, 3) identifying and reviewing core EPAs, and 4) pilot testing the EPAs. Post-pilot tests and surveys were conducted for the EPA developers, APN preceptors, and interns to explore their perceptions and experiences using the EPAs.

Results: A framework of nine core EPAs was developed for APN education, including 1) perform an initial assessment and formulating management plans, 2) manage follow-up care for a clinical encounter, 3) plan, perform and evaluate care procedures, 4) recognise and manage patients requiring urgent care, 5) manage care transitions within and between health care organisations, 6) recognise and manage pharmacological needs of patients, 7) collaborate with patients, families, and community to improve health through disease prevention and health promotion, 8) participate in health quality improvement initiative, and 9) develop self and others for professional practice.

Conclusion: Despite the stakeholders having positive attitudes towards the use of EPAs, it has its drawbacks. More is needed to examine the psychometric properties of the EPA assessment tools and evaluate their effectiveness in graduate nursing education.

Significance: The EPAs have been adopted by the APN training to blueprint the training and assessment activities, continuing evaluation is needed to evaluate the student's learning outcomes.



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### Integration and Specialization Program in Cardiology for Novice Adult Care Nurse Practitioner

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<sup>1</sup>Montreal Heart Institute, Montreal, Canada

In 2017, Quebec's nurse practitioner (NP) programs in cardiology were replaced by a more general initial university training program leading to the title of adult care NP (ACNP) to meet population health needs. This change means that since 2019 clinical settings must now support novice adult care NPs in their clinical specialization in their chosen field of care, to ensure safe, quality care. To this end, the Montreal Heart Institute (MHI) has developed and implemented a specialization and integration program in cardiology for ACNPs called Cardio-Pulse. The aim of this program is to support novice NPs in developing their competencies in cardiology and advanced nursing practice, as well as improving their role transition experience, job satisfaction, self-confidence, sense of self-efficacy, professional identity and staff retention. This 12-month program includes a competency framework, virtual preceptorship and mentorship, and a 104-hour E-Learning program in cardiology and advanced practice nursing accredited by the University of Montreal's Faculty of Nursing. To this end, we have used a number of indicators to measure the progress of these elements, which to date are progressing positively. These results support the relevance of such a program, since they demonstrate the improvement of the role transition experience and the development of cardiology and advanced nursing practice skills for novice NPs. Ultimately, we want to make this virtual program available free of charge to all cardiology ACNP in Quebec and Switzerland.



**Pandemic and Remote Teaching (RT) A Paradigm Shift in Nursing education - Faculty Competency and Challenges: SWOT Analysis Approach**

**Dr Girija Madhavanprabhakaran<sup>1</sup>**, Frincy Francis<sup>1</sup>, Sheeba Elizabeth John<sup>1</sup>, Arcalyd Rose Cayaban<sup>1</sup>  
<sup>1</sup>Sultan Qaboos Univeristy, Muscat, Oman

Background: Covid -19 pandemic forced educators and learners to switch abruptly to remote mode with challenges in all perspectives of education especially threatened digital inequality and low student engagement (Madhavanprabhakaran 2021; Khlaif ZN 2021; Dewart 2020).

Objectives: Explored the faculty’s and clinical instructors’ (CI) remote teaching competency and challenges using strength weakness, threat, and opportunity (SWOT) analysis approach. Methods: After ethical approval, web-based descriptive cross-sectional survey done among 200 faculties and CI of Middle Eastern universities from November 2020 to August 2021. The participants voluntarily rated a thirty-item Faculty Remote Teaching Assessment Questionnaire (FERTAQ).

Results: A response rate was 75%. Overall, 55% rated themselves as competent and 70% as proficient in RT. Major challenges reported were unfamiliarity with technology (95%), time limit (67%), inadequate resources, limited communication, low students' motivation and engagement, limited connectivity to quality internet. Institutional Learning Management System, Zoom, and Google meet were the three most frequently used platforms. SWOT analysis revealed strengths as student centered with digital generation favored e- learning. Weakness as less competent faculty and low supports. Threats such as inequitable access and monetary issues but opened many opportunities for more online courses and investing in learning management systems. Conclusion: Unfamiliarity with technology, low students’ engagement were main challenges. The authors recommended cost-effective approaches such as reverse mentoring and peer teaching to empower RT competency of faculty and nurse practitioners.

Significance: Enhanced remote teaching skills of multidisciplinary team will ensure uninterrupted teaching learning during epidemics and strategies of RT promote continuing professional development. RT is the hall mark of current generational need.



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**Bridging the research-practice gap: An argument for practice and research continuity in the PhD-prepared nurse practitioner (NP) in academia**

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Background: PhD students in all disciplines transition to new roles and new ways of thinking when moving to academia; nurses may find this transition especially difficult, in part due to the importance placed on clinical expertise. This can be particularly true for those PhD students who remain in clinical roles during their academic studies. Those who transition to academic roles encounter continuity challenges in clinical practice, while those who choose clinically-focused career paths need opportunities to use their research skills and seek to work as clinician/nurse scientists. PhD prepared NPs are ideally placed to conduct research and fulfill teaching, scholarship, and service responsibilities. NPs who can leverage both research and clinical skills have the potential to reduce the research-practice gap. Although the traditional combination of academic responsibilities does not typically include clinical work, it is sometimes designated as service.

Objectives: Our presentation explores how PhD-prepared nursing faculty who also practice as NPs experience the dual academic-clinician role. We will outline perceived challenges and facilitators to maintaining a dual role and consider how PhD prepared faculty experience the intersection between teaching, research, and clinical practice.

Methods or Approach: We review the literature describing PhD prepared academic faculty who maintain a clinical practice and present insights from semi-structured interviews conducted with a purposive sample of PhD prepared NPs who combine academic faculty roles with clinical practice in North America.

Key learnings or results: We propose that PhD prepared NP faculty bring a unique approach to the academic setting.

Conclusion and Significance: The research-practice gap has been estimated at upwards of seventeen years. PhD prepared faculty who also practice clinically as NPs may bring an awareness of the evidence base to their clinical roles, and a first-hand understanding of implementation and knowledge dissemination to research endeavors.



## 3.1 Clinical Workshop & Educational and Regulatory Landscapes Shaping Advanced Practice Nursing Oral Presentations

### Clinical Workshop

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#### **Integrating Extended Reality (XR) Into Your APRN Curricula: Multi-professional and Cross-continental Techniques**

**Dr Deborah Lee<sup>1</sup>, Dr Ray Blush**

<sup>1</sup>University Of Michigan, Ann Arbor, United States

Background: Healthcare education is undergoing a paradigm shift as educators seek innovative ways to prepare future APRN practitioners for the complex challenges of modern healthcare. One innovation that has gained momentum is XR which includes Virtual Reality (VR) and Mixed Reality (MR). VR offers an opportunity to immerse students in realistic clinical scenarios with real-world caseloads of multiple complex patients. The virtual environment, unlike most clinical settings, offers a safe and controlled platform for students to practice prioritization, diagnostic reasoning, and decision-making independently. The VR platform also provides robust computer-generated data analytics for each student. MR offers standardized, just-in-time, step-by-step procedural training to be completed independently by students.

Who: This session will be helpful to APRN faculty and simulation teams. The content will provide helpful information to those interested in using XR in healthcare education.

Structure of the Workshop: This presentation will guide APRN educators on the journey of integrating immersive VR and MR into curricula, offering a step-by-step approach and insights into the transformative potential of XR technology. Specifically, we will introduce the immersive VR scenarios our team has implemented and discuss approaches to scaffold learning in the progression of scenarios. We will demonstrate MR procedural training that we embedded in the APRN Procedures Course. We will discuss where and how to integrate XR into the curriculum, how to debrief, and how to utilize the rich individualized feedback generated within each platform. We will use our own work to demonstrate a successful application of this technology. After this brief introduction participants will engage in small group discussions based on sample cases for XR.

Introduction and Overview of XR (10 min): Definition, types of XR, and common uses in health professions education

Exemplar Case Study (25 min): Case study presented using VR. Details on development and implementation, including student evaluation.

Small Group Problem-solving (30 min): Participants break into groups to discuss and solve problems related to MR integration using sample cases or creating their own.

Report Out (15): Each group will share their examples.

Discussion & Debrief (10 min): Open floor for discussion, questions, and consolidation of the knowledge gained.



### Oral Presentations

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#### **Advanced Practice Nursing Across Borders: Making the Case for Global Certification**

**Dr Lorna Schumann<sup>1,2</sup>, Dr Karen Moore<sup>1,2,3</sup>**

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The WHO Global Strategy on Human Resources for Health Workforce 2030 identifies the need “for a strong and effective health workforce” and “requires matching effectively the supply and skills of health workers to population needs.” The International Council of Nurses (ICN) further articulates the need for adequate nurse staffing and estimated a global nursing shortage of over 13 million nurses including Advanced Practice Nurses (APNs). Embedded within these shortages are the reality that distribution of the healthcare workforce is not equal between countries. The United Nations (UN) defines countries based upon the Human Development Index (HDI) categories (ranging from low to very high) with notable disparity of nurse distribution between low HDI countries at a rate of 7/10,000 and very high countries at 95/10,000.

APNs can fill this critical need and reduce global inequities in healthcare delivery, but alignment of core APN skills, educational competencies, and certification requirements across borders are necessary to provide a foundational framework for effective interprofessional global collaboration. Just as we have seen during times of disaster or conflict,

mobilizing highly skilled healthcare professionals in a surge fashion into disaster areas is imperative to stabilize the local workforce and provide necessary healthcare to a region in crisis. The ICN Core Competencies in Disaster Nursing V 2.0 provides a starting point for global agreement on required skills and provides a template for the development of a set of standards within nursing that can be widely accepted. Similarly, the need remains for the conceptualization of a set of globally accepted APN standards, competencies, and certification requirements to address this ongoing crisis of workforce distribution inequity. To facilitate this discussion and move forward this idea whose time has come, models of global healthcare delivery collaborations and recognition requirements for healthcare professionals across borders will be explored.



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### **Supervision of trainee Advanced Practitioners**

**Colette Henderson**<sup>1</sup>

<sup>1</sup>University Of Dundee, United Kingdom

Background: Robust practice supervision and support is vital to enable and support transition of trainee Advanced Practitioners (HEE 2021 and Mallinson 2021). Across the UK standards from regulatory bodies provide detail of supervision and assessment requirements for approved programmes. However, as advanced practice is not approved by regulatory bodies, it has developed organically. Higher Education Institutions and practice partners have set their own standards. No specific consistent guidance exists within Scotland for Advanced Practice supervision enabling disparity to proliferate whilst demand for advanced practice roles has increased. HEE (2021) caution that these variations in practice pose a risk to role development whilst Mallinson (2021) argues the educational disparity has the potential to impact on patient safety.

Objectives: The aim of this presentation is to share initial findings from a hermeneutic phenomenological research project exploring the lived experience of trainee ANP supervisors in Scotland.

Method: Individual semi structured interviews of 9 ANP supervisors in Scotland was undertaken from October to December 2023.

Results: The initial findings from this research project are currently undergoing analysis.

Significance: Demand for advanced nurse practitioners has intensified, evident through programme applications, advertised jobs and policy direction (SG 2021a and 2021b). COVID 19 has affected the availability of supervisors to support trainee ANP role development. All of these factors could arguably challenge the effectiveness of supervision. There is a dearth of visible research evidence exploring the role of trainee advanced nurse practitioner supervisors making this an important and contextualised research study.

#### References:

Mallinson, T. (2021) An exploratory study into the teaching of clinical examination skills in advanced practice British Journal of Nursing 30, 12, 712-720

Scottish Government. (2021a) Advanced nursing practice- transforming nursing roles: phase two.

Scottish Government. (2021b) Transforming nursing, midwifery and health professions' roles: review of clinical nurse specialist and nurse practitioner roles in Scotland



## 3.2 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### The International project ICARO in the Advanced Practice Nurse learning

**Dr Cinzia Gradellini<sup>1</sup>, Prof Monica Bianchi<sup>1</sup>**

<sup>1</sup>University of Applied Sciences and Arts of Southern Switzerland, Manno, Svizzera

Background: Nowadays, caring has to be prepared for new complexities that require advanced skills, not always promoted in educational contexts, which is why new curricula and sharing of a new professional identity are recommended (Glasgow et al., 2017).

In Nursing Education, Information and Communications Technologies (ICT) support quality learning, utilize scientific evidence, improve digital literacy, facilitating the information systems use (Hareimana et al., 2021). Within the related benefits, it emerges critical thinking, problem-solving skills, evidence-based skills, increasing interdisciplinary (Liu, 2020), and promotion of international networking (Liu, 2020).

Objectives: Implementation of ICT; promotion of cooperation between universities and health companies; promotion of digital literacy; proposal of new educational offers through high-quality Advanced Practice Nurse (APN) topics (Barca et al., 2021); promotion of employability through the creation of advanced skills; promotion of internationalization through virtual and real mobility; promotion of the English language; promotion of APN networks.

Approach: The project ICARO, ICt and Advanced Nursing to Reconsider Learning Outcomes, is financed by Movetia to realize a 2-years joint training pathway, which allows the quality improvement of the educational offer through the implementation of knowledge and experiences sharing, ICT use, English (Robustelli, 2015) and mobility promotion. It is targeted at Master Degree Nursing and Midwifery students from two universities (Switzerland and Italy).

Key learning: Attended results are two syllabi promoting APN competencies on leadership and qualitative research; a Moodle training module in English; the publication of a summary document of the module contents; an intensive in-presence course; dissemination conferences.

Conclusion: ICARO is now at the end of its first year, with conclusions and publication of syllabi, and learning activities on Moodle.

Significance: Intending to train nurses, with advanced practice competencies, ICARO responds to the priority of digital transformation, in the Master of Sciences, and it promotes internationalization, realizing exchanges of knowledge, and experiences.



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### Work-based advanced skills module focused on Paediatrics for Advanced Nurse Practitioners. A collaboration between NHS Lanarkshire and Glasgow Caledonian University

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Background: The General Medical Services Contract (2018) proposed a refocus of the GP role to expert generalists with some tasks moving towards APN (Scottish Government, 2017). One way NHS Lanarkshire implemented the contract was by introducing urgent in-hours APN. With the changing regulatory and educational landscapes of AP, NHS Lanarkshire in collaboration with Glasgow Caledonian University Nursing APP programme devised a work-based advanced skills module focused on paediatrics.

Objectives: To educate ANP to undertake a comprehensive history and physical assessment of an ill child using a systematic approach, formulating an accurate differential diagnosis and an appropriate management plan, also, recognising the acutely unwell child and escalating care.

Methods or Approach: A work-based learning contract was devised by the University and the AP lead., constructively aligned to meet master's level learning (Biggs, Tang & Kennedy, 2022). Additionally, NHS Lanarkshire devised a competency workbook for students to work through as part of their learning. Students in collaboration with their practice supervisor identified learning needs and a strategy to achieve them. Students developed an e-portfolio consisting of CBD, mini-CEX, reflections, anonymised patient log and supervisors' feedback.

Key Learning or Results: The module is assessed by completion of the portfolio, long case OSCE and case based assignment in which students critically analyse literature on a patient's investigation or management and provide

recommendations for practice. To date the service has supported 50 Nurses to achieve Advanced Practice status most of which have successfully completed the module as part of their ANP training.

Conclusion: The work-based module for paediatrics provides ANP with the competence and confidence to assess children in primary care. Innovative programmes such as this ensure an advanced practice workforce that can meet patients' needs.

Significance: This module can be adopted by others as an innovative approach to AP education.



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### **State of the Art on Advanced Practice Nursing Role Management International Theories, Models and Frameworks: A Scoping Review**

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Background: The International Council of Nurses (ICN) proposed the definition of Advanced Practice Nurse (APN) in 2002, and APN has gradually been introduced to different countries to address the increasing demand for nursing services and workforce shortages in healthcare systems.

Objective: This article provides a scoping review of the frameworks theoretical models for the role management of APN internationally, and obtains the latest research status, providing reference for future managers to develop senior practice nurses.

Method: A scoping review conducted using the Arksey and O'Malley (2005) framework and reported in accordance with PRISMA-ScR. Web of Science, PubMed, CINAHL, The Cochrane Library, Embase, Scopus, Wanfang Database, China National Knowledge Infrastructure, and China Biomedical Literature Database, were searched to identify studies published before November 17, 2023. Summarize and analyze the included literatures.

Inclusion criteria: 1) The content mainly involves senior practice nurses; 2) The content involves advanced practical management; 3) The content involves advanced practical theories, models, and frameworks; 4) The types of literature include literature review, evidence summary, randomized controlled trials, quasi experimental studies, cross-sectional studies of cohort studies, qualitative studies, expert opinions, policy standards, etc; 4) Chinese and English literature. Exclusion criteria: 1) inability to obtain full text literature; 2) Repeated publications.

Results: According to the inclusion criteria, 32 articles were ultimately included, including 8 models and frameworks.

Conclusion: The introduction and development of APN must be carried out within a certain framework. This article provides a scoping review of the models and frameworks related to APN role management, providing evidence for managers and leaders to manage and develop APN.

Significance: Providing evidence and reference for managers or leaders to manage and develop APN, improving the practical level of APN, improving nursing quality, and improving patient outcomes.



1139

### **Precision Nursing Education and Artificial Intelligence in Educating Advance Practice Nurses in Practice**

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<sup>1</sup>University Of Florida, United States

Background: Advanced practice nurses (APN) transition to practice is challenging for new graduates. Traditionally, educators use a "one size fits all" approach to training new APNs, rather than a personalized model of preparation.

Precision nursing education (PNE) is a concept of education acknowledging not all learners are equal and educators can predict, personalize, and participate in improving outcomes. Artificial intelligence (AI) is one tool to personalize education, providing feedback to improve performance. Both can integrate into virtual reality simulation, providing life-like simulation and developing skills.

Objectives: The project has 2 objectives: 1) Define PNE and 2) Present a model to guide nursing educators and APN residency leaders in precision nursing education.

Methods or Approach: Building on a concept analysis to define PNE, we identified the key features of an education model of PNE. The concept analysis process included a review and analysis of the literature. From this, the elements of a PNE model emerged consisting of the following elements: Teaching and Objective Evaluation based on data.

Key learnings/results: While AI technologies is one means for achieving PNE, the goal of data-driven as an objective evaluation is immediately available. Teaching should include competency-based performance and evaluation based on data. Data is then used to determine the students' or APNs' weaknesses and strengths toward success. The key element is objectivity using data to remove bias in evaluation.

Conclusion: Through the concept analysis for PNE, we developed a model to support educators and APN mentors.

Significance: PNE and AI pave the way to educate new APNs through a new model that is predictive, personalized, and data-driven to improve knowledge and skills in transitioning to practice.



1147

### **Promoting ANP Leadership Through an International Exchange: Going Outside The Comfort Zone in a Foreign Language**

**Lillian Maas<sup>1</sup>**

<sup>1</sup>Rotterdam University, Netherlands

Background: International exchanges are more common for bachelor's nursing students but master's nursing students benefit just as much from going abroad for an international exchange. Since 2006, more than 400 ANP students have gone abroad.

Objectives: The objective of this presentation is to identify ways to promote leadership for non-native English speaking APN students during an international exchange.

Approach: Rotterdam University in the Netherlands has mandated an international exchange for their students. The exchange requires them to speak in a foreign language, demonstrate public speaking skills, be an ambassador for the APN role and be proactive in creating an engaging international experience that impacts them both professionally and personally.

Key learning: Students were very intimidated to present in foreign language must less to do this in front of their professional peers. Once they conquered their own fears and adapted to English speaking in the classroom, they had to adapt to the new culture and language during their international exchange. The students started to gain confidence in their own abilities (professional medical English, public speaking, and networking) which later transferred into their own confidence and leadership within their own practice and setting.

Conclusion: Going abroad helped students reflect not only on their own practice but they saw many ANPs in position of leadership. Realizing they can speak professionally to their peers in a foreign language also helped them to reflect on their English speaking skills that allowed for them to share and exchange knowledge.

Significance: Nurses from countries that do not speak English as a first language, should be encouraged to have an international experience along with English in the curriculum to help them connect with other international ANP professionals through conferences, research and networking.



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### **Continuing education for advanced practice nurses: A scoping review**

**Mea Wright<sup>1</sup>**, Tarja Kvist<sup>1</sup>, Krista Jokiniemi<sup>1</sup>

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Background: Eighteen European countries reported nursing workforce shortages in 2021. Simultaneously, the health expenditure has been increasing during the last 20 years. These matters described above require implementing healthcare delivery with an appropriate and sustainable skill mix of nurses. Thus, there is a need to increase the supply of advanced practitioners. An advanced practice nurse is a registered nurse who has acquired an expert knowledge base, complex decision-making skills, and clinical competency through additional education.

Objectives: This study aimed to identify the nature and extent of scientific research addressing continuing education for advanced practice nurses.



Methods or Approach: A scoping review adhering to the Joanna Briggs Institute’s methodology guidelines. Electronic search was conducted on September 17th, 2023, via CINAHL, PsycINFO, PubMed, Scopus, Web of Science, Cochrane Library, and the Joanna Briggs Institute’s Evidence-Based Practice Database for research articles published between 2012 and 2023.

Key learnings or results: Nineteen papers were included in this review. Scientific research on continuing education for advanced practice nursing roles (i.e., nurse practitioner, clinical nurse specialist) has primarily been conducted in the United States and mostly addresses online-delivered continuing education interventions for clinical care competency. Most of the continuing education interventions targeted nurse practitioners.

Conclusion: Continuing education has a pivotal role in supporting advanced practice nursing competency development. In addition to clinical care, future continuing education research should focus on other advanced practice nursing competencies, such as education, leadership, supporting organizational strategies, research, and evidence implementation.

Significance (Impact and Reach): Continuing education for advanced practice nursing roles is an understudied phenomenon. This review highlights future research priorities and may inform the development of continuing education programs. This paper sheds light on the understudied phenomenon of continuing education for advanced practice nurses and identifies a knowledge gap concerning continuing education for clinical nurse specialists.



### 3.3 Investing in the APN Health Workforce, The UK perspective - Multi-professional Advanced Practice & Advancements in Digital Health and Technology for Enhanced APN Practice

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#### Factors impacting the role development and utilization of master's-prepared Omani nurses working in clinical settings: a multiple case study

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**Background:** Positive patients and organizational outcomes have been associated with care provided by master's-prepared advanced practice nurses. Master's-prepared Omani nurses have been utilized mainly in management, education, nursing speciality, and advanced practice nursing roles. These nurses reported that they are not fully utilized according to their educational preparation. little is known regarding factors impacting the role development and utilization of master's-prepared Omani nurses working in clinical settings.

**Objectives:** To identify factors impacting the role development and utilization of master's-prepared Omani nurses working in clinical settings.

**Methods:** A multiple case study involving two hospitals in Oman. Semi-structured individual interviews were conducted with 19 master's-prepared Omani nurses, eight co-workers, and eight policymakers. Relevant documents were reviewed. Data were analyzed using thematic analysis.

**Key learnings:** The cross-case analysis identified individual, organizational, and system level factors impacting role development and utilization of master's-prepared Omani nurses. Personal characteristics and team support were identified as facilitators. Mismatched expectations between nurse administrators and master's-prepared nurses, role ambiguity, lack of career pathways, and limited availability of resources were the common barriers at the organizational level. System level barriers included lack of financial remuneration for advanced practice, the absence of enabling regulation and legislation, and lack of nurse's unity.

**Conclusion:** Providing intra and interprofessional support are fundamental to facilitate the introduction and utilization of master's-prepared nurses. Increasing role clarity, establishing a career trajectory, financial reimbursement, and role recognition and legitimacy will enhance the clinical roles of master's-prepared nurses.

**Significance:** Our study identifies the importance of intra-professional support to integrate and utilize nursing roles in clinical practice. Country level legislation and regulation are needed to recognize, define, and legitimize nursing roles. The utilization of master's-prepared nurses in advanced practice nursing roles could be optimized by designing strategies directed toward addressing the identified individual, organizational, and system level barriers.



1556

#### An exploration of guidance teachers' current perceptions of the school nurse role in Scotland: a service evaluation

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**Background:** Despite the school nurse role being recognised in the UK since the early 1900's, there is often confusion surrounding the role from the wider public and multi-agency professionals. The role of the school nurse in the UK is varied, with limited empirical studies exploring the perceptions and complexities of the role and the impact this may have on service delivery. As guidance teachers submit a high proportion of referrals to the school nursing service, by exploring their views of the school nurse role, this may lead to enhanced partnership working, and appropriate referrals to the service. This may contribute to a more effective use of guidance teachers' time and ultimately, young people will have access to timely support by the relevant service; in keeping with the principles of 'Getting It Right For Every Child' National Practice Model.

**Objectives:** To understand guidance teachers' perspectives of the school nurse role, in order to support school nurses in the delivery of the refocused role in Scotland.

**Methods:** A qualitative service evaluation will be undertaken between February and April 2024. Semi-structured interviews will be conducted with six guidance teachers, which will be audio recorded and transcribed verbatim. Participants will be recruited from three areas within one NHS Scottish health board. Data will be analysed thematically.

**Results:** Key themes from the study will be presented.

Conclusion: The study findings will provide opportunities to understand guidance teachers' perspectives and identify any organisational barriers, in order to develop the school nursing service collaboratively.

Significance: The findings will provide clarity of the school nurse refocused role, to ensure referrals are made to the appropriate health services. Dissemination of findings will provide guidance teachers and school nurses the opportunity to develop the school nursing service.



1137

### **Global Advanced Practice Nurses' Job Satisfaction and Intent to Leave**

**Dr Kimberley Lamarche**<sup>1</sup>, **Dr Jennifer-Lynn Fournier**<sup>2</sup>, **Dr Melanie Rogers**<sup>3</sup>, Dr Catherine Lyden<sup>4</sup>, Kelly DeCoste<sup>2</sup>, Alexandra MacDonald<sup>1</sup>, **Dr Jennifer Knopp-Sihota**<sup>2</sup>

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Background: Advanced Practice Nurses have been mobilised in the global health context, both in leadership and clinical capacities, to work towards achieving universal health coverage to meet Sustainable Development Goals. Several global organisations have lobbied for increased investment in the development of Advanced Practice Nurses, including maintaining a robust, resilient, satisfied workforce. Innovations in care, and strategic advancements in credentialing and role definition have resulted in increased understanding of the relationship between job satisfaction and Advanced Practice Nurses intent to leave.

Objectives: This study explores and gains a deeper understanding of Advanced Practice Nurses' job satisfaction and intent to leave globally.

Methods: Using a descriptive, correlational design, data collection internationally will capture job satisfaction and intent to leave data utilising a validated questionnaires presenting data related to Herzberg's Motivation Hygiene Theory.

Key Learnings: Findings will allow for the reflection of a maturing Advanced Practice Nurse profession including effects of a global pandemic on job satisfaction and intent to leave. Empirical data related to the profession plays a crucial role in the expansion and optimization of the role.

Conclusion: The study data will be used to better inform employers and healthcare systems about strategies that may increase Advanced Practice Nurse job satisfaction and decrease turnover. Data identifying facilitators and barriers to satisfaction with Advanced Practice Nurses work and intent to leave is particularly important in the progression of strategic role development.

Significance: Understanding the factors that contribute, on a global scale, to job satisfaction and intent to leave is critical to creating robust evidence-based systems, policies, and professional standards. Data analysis will not only determine the overall workforce levels of satisfaction, but also provide insights into modifiable factors which have the potential to yield the largest workforce strategic impact.



1140

### **Sustaining an Academic Practice Partnership to Improve Quality of Care for Veterans: Lessons from the Field**

**Martha Whitfield**<sup>1</sup>, Kelley E. Gomez<sup>2</sup>, Amy Denis<sup>2</sup>, Melanie Keiffer<sup>1</sup>

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Background: Academic practice partnerships (APPs) are formal relationships, that build on the expertise of individuals from academic and clinical settings in support of mutual goals, with the aim of improving patient care. Nurse practitioner (NP) residencies provide postgraduate education for newly qualified NPs as they transition to the advanced practice workforce. Barriers to establishing and sustaining APPs include financial challenges, lack of shared vision, and logistical issues.

Objectives: We describe the maintenance of a successful academic-practice partnership between a public university and a Veterans Health Administration (VA) nurse practitioner (NP) residency program in the Northeastern United States.

Methods or Approach: The APP we describe is focused on innovative veteran-centric nursing education and practice aimed at increasing access to quality healthcare for rural and underserved veterans. The VA residency provides selected NPs with a year of intensive postgraduate training. University and clinical faculty provide mentorship and a framework

for development of the individual's quality improvement project. Pre-licensure NP students also complete rotations in VA clinics.

Key learnings or results: We describe a successful partnership in its sixth year: detail partnership goals and the pedagogical framework; describe activities including development, implementation, and dissemination of NP resident quality improvement projects (n=21); and share program successes and challenges. Of the 23 NP residents in prior cohorts, 21 completed the program, and 10 (48%) were retained in permanent VA positions. A steering and oversight committee provides collaborative program oversight, strategic planning, resource allocation, and outcome analysis.

Conclusion: The VA academic-practice partnership offers an innovative approach for academic and postgraduate programs to effectively partner and develop a foundation and strategy for veteran-centric quality improvement.

Significance: Academic practice partnerships effectively develop NP workforce competency in quality improvement and positively impact veterans' quality of care. This work contributes to evidence on academic-practice partnerships involving NP postgraduate residency programs.



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## **Transforming Graduate Nursing Education Using Artificial Intelligence**

**Dr Joyce Knestrick<sup>1</sup>, Dr Mary Ellen Roberts<sup>2</sup>**

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Background: Artificial Intelligence (AI) is already an integral part of nursing education, various platforms such as search engines, grammar checks, and social media platforms use machine learning. As AI continues to evolve, nursing education can capitalize on it as tool to create innovative teaching methods, and personalize student learning. This presentation will show case insights from the use of AI by students in graduate courses from two different universities.

Objectives:

1. Discover ways to integrate AI into graduate nursing education.
2. Discuss the transformation of student learning using AI.
3. Consider the benefits and disadvantages of using AI.

Methods/ Approach: AI was used to tailor the educational content to individual students via the case studies. Students were provided instruction on the use of an AI platform. Students were given specific case studies to address course outcomes.

Key Learning/Results: The results of the case studies will be presented. The results include:

- testimonials from students and educators regarding the benefits and concerns related to the use of AI;
- the ability to adapt student assessment in real-time to challenge the student to meet the learning outcomes and to provide feedback;
- Increased student engagement

Conclusion: The use of AI in graduate nursing education has potential to transform graduate nursing education. Real time feedback can be provided to students using AI. Discussion and use of AI in graduate programs can prepare students to understand methods to effectively and ethically use AI in practice. However, challenges remain regarding ethical considerations for students and in practice as it relates to privacy, data security and AI bias.

Significance/ Impact and Reach: This presentation is significant due to the potential of AI to improve student learning outcomes and feedback, which will ultimately optimize healthcare processes and improve patient care



1124

## **Introduction of the candidate Advanced Nurse Practitioner (cANP) role in Colorectal Cancer Survivorship**

**Mary Forry<sup>1</sup>**, Janette Hanway<sup>1</sup>, Caroline Fogarty<sup>1</sup>, Fiona McNally<sup>1</sup>, Amy Kenny<sup>1</sup>, Prof John Burke<sup>1</sup>, Niamh McCawley<sup>1</sup>, Dr Helen Barrett<sup>1</sup>, Prof Deborah McNamara<sup>1</sup>

<sup>1</sup>Beaumont Hospital, Ireland

Background: The National Cancer Strategy 2017 -2026 outlines the need for a national approach to develop an appropriate model of survivorship healthcare in Ireland.

Objectives: To foster and develop relationships across the established multidisciplinary teams who deliver care to those with cancer.

To develop a survivorship pathway for patients diagnosed with colorectal cancer (CRC) using the National Cancer Control Programme (NCCP) recommended ALLIES model of care which incorporates the following principles: assess, link in and link out and onward, inform, empower and deliver timely access to support and services.

Methods: Interrogation of the Dendrite database identified an average of 236 diagnoses of CRC per year between 2017 and 2021. A defined cohort of CRC patients was identified for inclusion into the cANP led CRC survivorship clinic. Documentation was developed with support from the cANP's mentor. Time was spent in oncology, radiation oncology and the established CRC clinics. Meetings were held with other services delivering survivorship care.

Conclusion: Improved treatments for CRC bring the potential for late and long-term side effects that may affect quality of life. ANPs are well placed to deliver long-term follow-up, health maintenance, and lifestyle modifications which remain important components of the care of CRC survivors.



### **3.4 Multidisciplinary: The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing, Extending the Reach, Amplifying the Impact, and Realising the Value of APNs & Advancements in Digital Health and Technology for Enhanced APN Practice**

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#### **Role & Scope of the Nurse Practitioner in a rural Emergency department Northern British Columbia**

**Helen Craig<sup>1</sup>, Brandin Lilgert**

<sup>1</sup>Northern Health, Prince George, Canada

Given the Health Human Resource crisis, our small rural communities are in need of clinicians to staff the Emergency Department and look at new models of care. A Nurse Practitioner has worked to develop strong relationships with his physician colleagues in community, completed additional education to prepare for work in this setting, and has been asked to participate in this setting. His recent NP background clinically is in the urgent care setting. The NP has been working in a primary care setting initially, and more recently in a setting that provides both primary & urgent care and he has been providing the latter for the last 3 years. A pilot project has been established to examine the NP role/scope in this rural Emergency department with physician mentorship and evaluate this role/scope at specific intervals.

The evaluation will identify facilitators, barriers, lessons learnt as well as considerations for spread of this model of care. Evaluation will also consider outcomes framed around the quintuple aim of patient and provider experience, patient outcomes, value and equity. The local hospital serves a population of over 5000 residents, and is a 2 hour plus drive to the next level of care, and/or 4.5 hours from the highest level of care in this rural region. Family physicians and nurse practitioners provide primary care, and many family physicians also provide coverage in the Emergency Department, as well as provide anesthesia services, and surgical support when visiting specialists have an OR slate.

The rural context is unique, and offers opportunities for Nurse practitioners to lead/develop and implement new models of care that have the potential to spread to other small communities in this region.

Articulating the Nurse practitioner education, clinical mentorship and role and scope is fundamental to the full implementation of this model of care.



1146

#### **Beyond Boundaries: Empowering Advanced Practice Nurses with Interprofessional Communication Skills for Leading Interdisciplinary Teams in Primary Care**

**Dr Glenna Lashley<sup>1</sup>**

<sup>1</sup>Lee University, Ooltewah, United States

Background: Interprofessional collaboration is imperative for advanced practice nurses to positively impact patient safety and quality care outcomes. In primary care, the increasing prevalence of chronically ill patients, combined with resource limitations affecting social determinants of health and provider shortages, has led to fragmented patient care. Effective communication is a key factor in fostering successful collaboration among interprofessional colleagues. Yet, challenges persist due to the lack of interprofessional collaboration in educational curriculum and resistance to change within disciplines.

Objectives:

1. To explore effective communication models that enhance interdisciplinary communication.
2. To define the role of advanced practice nurses in improving communication and leading effective interdisciplinary teams to achieve positive patient outcomes.

Methods or Approach: This presentation will adopt a lecture style presentation, enriched with examples of effective communication models and case studies. These case studies will demonstrate how interdisciplinary collaboration, guided by advanced practice nurses, has led to improved patient outcomes, particularly in managing chronic illnesses and addressing social determinants of health.

Key Learnings or Results: Attendees will gain practical insights and strategies that can be directly applied to their practice to enhance interprofessional communication. The presentation will make evident the transformative power of effective communication in interdisciplinary team dynamics and patient care.

Conclusion: Enhancing interprofessional collaboration among advanced practice providers in primary care is crucial for managing chronic illnesses and addressing the needs influenced by social determinants of health. Effective communication is the cornerstone to improving interprofessional collaboration.

Significance (Impact and Reach): This presentation highlights the critical need to integrate interprofessional collaboration into the education of advanced practice nurses. By doing so, improves advocacy for a holistic approach to patient care in primary care setting, emphasizing the importance of comprehensive, collaborative care models for improved patient outcomes.



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### **Designing an Interdisciplinary AG-ACNP Myocardial Infarction Simulation**

**Dr Mary Ellen Roberts<sup>1</sup>, Dr Moira Kendra<sup>1</sup>, Prof Catherine Loughrey<sup>1</sup>**

<sup>1</sup>Seton Hall University, South Orange, United States

Background: Simulation is an educational tool that are used to increase the students' clinical knowledge and improve their decisions by permitting them to interact safely with life-size computerized patient mannequins. Simulation replicates real life experiences that are monitored by nursing faculty in an interactive manner. Advanced practice students need to learn how to interact in an interdisciplinary manner as part of a team.

Objectives:

1. to enhance the competency of advanced practice students in interdisciplinary education.
2. to encourage the team approach in caring for a patient in crisis.
3. engage in implementation of patient safety.

Methods or Approach: An evidence-based Acute Coronary Syndrome simulation-based learning experience was created and implemented into the Fall 2023 Adult-Gerontology Acute Care immersion. Students worked in pairs as providers with undergraduate nursing students as bedside nurses. In addition, faculty acted as either physician providers or respiratory therapists. Formative evaluations of the graduate and undergraduate students were done. Students were graded as satisfactory or unsatisfactory.

Key learnings or results: Students were very satisfied with the experience giving the critical thinking skills to work in an interdisciplinary environment. One key factor was the need for additional faculty to take on the role of physician.

Conclusion: This experience led to the students wanting more simulation learning experiences. Both faculty and students were able to evaluate the importance of this learning experience and necessary changes will be made in the upcoming immersion experience.

Significance (Impact and Reach): This learning experience has a significant impact on undergraduate and graduate students. Critical thinking in an emergency situation has been enhanced by this interactive session.



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### **Innovating Healthcare: Implementation of an In-Hospital Multidisciplinary Nursing Consultation System in China - An Advanced Practice Nursing Perspective**

**Hui Zhang<sup>1</sup>**, Lei Sheng

<sup>1</sup> Jining First People's Hospital, Jining City, China

Background: The role of advanced practice nurses in China lags behind Western countries, prompting recent efforts by national and provincial associations to emphasize specialized nurse training. Despite these initiatives, the utilization of qualified specialized nurses remains unsatisfactory, hampering their impact on professional practice.

Objective: Establish a platform for multidisciplinary consultation, assess the role of specialized nurses, and explore their viable utilization options.

Methods: We clarified admission qualifications for consultation experts, selecting outstanding specialists from a pool of 285 candidates. This formed the consultation expert pool. Standardized processes for pre, during, and post-multidisciplinary consultations were developed. A procedural pathway for multidisciplinary consultation was integrated into the hospital information system (HIS), optimizing settings for direct importation of patient case information into the consultation request form. This allowed consultation experts to share electronic case information, and templates for consultation opinions were imported to streamline recording. The Nursing Department could monitor the progress of multidisciplinary consultations on the platform and evaluate the process and results.

Results: From 2021 to 2023, 185 cases of multidisciplinary nursing consultations were conducted, achieving a 91.9% standardized implementation rate and a 98.9% satisfaction rate. The effective resolution rate of patients' nursing problems was 90.8%. Notably, participating specialized nurses' professional identity scores increased significantly from 90.69±16.84 to 115.56±20.45.

Conclusion: The implementation of the multidisciplinary consultation system effectively harnessed specialist nurses' capabilities, enhancing patient care services and elevating their professional identity.

Significance: This project is crucial in addressing the underdeveloped role of advanced practice nurses in China. The positive outcomes, including high satisfaction rates and increased professional identity scores, underscore its impact on advancing nursing practices and improving healthcare quality in the Chinese context.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Choosing Tuesday!: Establishing and sustaining regular clinical supervision in advanced nursing practice**

**Olivia Smith**

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Background: Clinical supervision is a valued learning tool for student nurses, however there is a paucity of description around clinical supervision among qualified nurses including advanced nurse practitioners. Many qualified nurses claim delays in engaging with clinical supervision may be caused by staff shortages, time constraints, or a reticence to engage in a potential reveal of knowledge or practical skill shortcomings.

Aims and Objectives: This paper describes a process of monthly clinical supervision sessions over a twenty five year period among a group of advanced nurse practitioners. It highlights the enablers and challenges of sustaining regular clinical supervision in a busy clinical setting in an Emergency Department. It reflects on the process and suggests a template for regular clinical supervision.

Methods: This paper describes a process of regular clinical supervision by advanced nurse practitioners. A descriptive analysis of many enablers and challenges that arise are identified. A sample reflective description is included. Changes to nursing practices that emerged from clinical supervision sessions are highlighted. A guidance conceptual framework for regular clinical supervision is suggested.

Key Learnings / Results: The paper identifies many positives benefits emerging from clinical supervision both for patient care and nurses. These positive aspects appear to sustain a regular clinical supervision process and offset any challenges and pitfalls.

Conclusions: Regular clinical supervision by advanced nurse practitioners in the Emergency Department is seen as beneficial to clinical practice and enables overall positive affirmation within the advanced practice role in a busy working environment. Resilience and commitment to the process is paramount to its success.

Significance (Impact and Reach): Clinical supervision is a key component of professional development for advanced nurse practitioners. This paper shows the process is adaptable to suit the specialist clinical area. Benefits for nursing and patients have been highlighted.



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### **The Critical Rapid Outreach Team led by Advanced Practice Nurses in the critical care virtual ward**

**Li Qing Li**<sup>1</sup>, zi bei Dong, shuang Ge, guan yong Gu

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Background: Critical patients outside the ICU often face challenges in receiving timely and effective treatment for sudden changes in their condition.

Objective: This study aims to establish an operational plan for the Critical Rapid Outreach Team (CROT) led by Advanced Practice Nurses (APN) and evaluate its impact on the medical outcomes of patients in the critical care virtual ward.

Methods: The CROT was established, led by an APN and consisting of intensive care unit (ICU) practitioners, respiratory therapists, and specialist nurses. The team was formed based on failure mode and effect analysis, which helped determine early warning standards, activation methods, team composition, equipment configuration, and an efficient operation mechanism. To optimize the management of patients in the critical care virtual ward, a closed-loop intervention strategy was implemented, integrating supervision, inspection, plan formulation, rapid response, and first aid. The effects of this protocol on various outcomes were evaluated, including the rate and interval of unplanned ICU admissions, duration of ICU admission, mortality rate, incidence of cardiorespiratory arrest, success rate of rescue, and mortality rate of hospitalized patients in the critical care virtual ward.



Results: Following the implementation of CROT led by the APN, there was a notable reduction in the rate of unplanned admissions to the ICU and mortality subsequent to ICU admission among patients in the critical care virtual ward. Additionally, the time interval between unplanned ICU admissions and actual admission to the ICU was shortened. The incidence of cardiorespiratory arrest decreased, and the success rate of rescue interventions significantly increased ( $P < 0.05$ ).

Conclusions: Demonstrates the ability to enhance medical outcomes for patients in the critical care virtual ward.

Significance: The APN-led CROT team plays a crucial role in early identification and intervention of critical cases outside the ICU, thereby ensuring the utmost medical safety for patients in the general ward.



### 3.5 Investing in the APN Health Workforce

NPAPN24030

#### Advanced Practice Nursing Competencies in Registered Nurses in Six Countries from Latin America and the Caribbean Region

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**Background:** Despite the evolving demands in global healthcare services, the educational systems, regulations, and legislative frameworks in many Latin American countries are not conducive to Advanced Practice Nursing (APN), where nurses are increasingly required to assume newer and more advanced responsibilities.

**Objective:** This study aims to compare advanced nursing tasks across six Latin American and Caribbean countries.

**Methods:** Employing a quantitative comparative approach, the study involved gathering sociodemographic and professional data and utilizing the Modified Advanced Practice Nursing Role Delineation (MAPNRD) Tool among 3,155 registered nurses. Descriptive statistics and ANOVA (post hoc tests) were applied to evaluate nurses' performance in APN activities and compare them across countries.

**Results:** The highest mean scores for each country across various dimensions (ranging from 0 to 4) were as follows: expert care planning (3.2 SD 0.58) for Cuba; comprehensive care (3.2 SD 0.73) for Mexico; interprofessional collaboration (2.7 SD 0.75) for Cuba; education (2.9 SD 0.92) for Paraguay; research and evidence-based practice (2.5 SD 0.96) for Peru; professional leadership (2.9 SD 0.92) for Paraguay. Comparisons among countries revealed significant differences in all dimensions of the role ( $p < 0.005$ ). However, multiple comparisons indicated that Peru exhibited greater similarities across all domains compared to the other countries, unlike Paraguay, which differed from the other five countries ( $p < 0.005$ ).

**Conclusion:** APN competencies are discernible in various nursing roles in countries where the role has not been fully implemented. Nonetheless, significant differences exist across all areas of the role among participating countries. **Significance:** Study findings will streamline the transfer and implementation of APN training programs, tailored to the strengths and weaknesses of professionals in diverse countries. Moreover, they will inform the development of instructional strategies for recognizing past competencies, thereby fostering the acceptance and integration of the role across varied contexts.



NPAPN24030

#### Explaining the competencies of Advanced Practice Nursing demonstrated by registered nurses from Latin-American and the Caribbean countries

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**Background:** Demand for competent healthcare professionals to deliver quality and safe care necessitates clinically prepared nurses at the master's level who integrate advanced practice competencies into the Latin American context. Clarity regarding professional roles and their applicability locally will facilitate the transfer of training programs to the local context.

**Objective:** To examine the relationship between advanced practice nursing competencies and sociodemographic/professional characteristics in register nursing across 6 Latin American countries.

**Methodology:** Cross-sectional, correlational study with 3,155 nursing professionals responding to a self-administered online questionnaire (sociodemographic/professional characteristics and the "Definition of the Advanced Practice Nursing Role" (IDEPRA) instrument). Data analysis includes descriptive statistics, correlations, and linear regression models (confidence level 95% and significance 5%).

Results: The IDEPRA average demonstrates APN behaviours across its 6 dimensions. Better overall IDEPRA results are associated with being a specialist nurse, having 8-11 years of work experience, and being female ( $p < 0.005$ ). Higher scores in all 6 dimensions are associated with being a licensed nurse and working in primary care ( $p < 0.005$ ). Variables explaining IDEPRA results include having a bachelor's degree ( $\beta = 0.247$ ), working in primary care ( $\beta = -0.245$ ), and having 8-11 years of experience ( $\beta = -0.232$ ). Country-specific outcomes underscore the significance of professional education and work experience

Conclusion: Within the surveyed countries, bachelor's level education and work experience facilitate the demonstration of APN competence in professional settings. Significance: Study findings will streamline the transfer and implementation of APN training programs, tailored to the strengths and weaknesses of professionals in diverse countries. Moreover, they will inform the development of instructional strategies for recognizing past competencies, thereby fostering the acceptance and integration of the role across varied contexts.



NPAPN24033

### **Saudi Nurse Academic Leaders About Advanced Practice Nursing: A Qualitative Approach**

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Background: Advanced Practice Nursing (APN) Education is a strategic move to address the evolving needs of healthcare sectors with well-equipped graduates. However, the perspective of academic nursing leaders (ANLs) of APN programs has yet to be explored.

Objectives: This study aimed to explore the perspectives of ANLs in academic settings about the APN in Saudi Arabia. Methods: A qualitative descriptive design was employed using purposive sampling of 13 ANLs (August 2021 - January 2023) and semi-structured interviews. Thematic analysis was used to capture the description of and the need for APNs, the current situation of APNs, the recommended admission requirements and focus of APNs, the challenges and barriers to implementing APN programs and roles, and the future of APNs. The study adhered to the COREQ guidelines.

Results: ANLs identified APN as specialized, advanced clinical skills and knowledge, autonomous practice, and varied roles based on regional contexts. The infancy of APNs and the limited number of APN programs were noted. Improving patient outcomes and addressing the gaps in the healthcare sectors were identified. The differences between APN roles, specific roles in the healthcare system, and country-specific variations were acknowledged. Participants emphasized covering all specialties and subspecialties and aligning with market needs. A bachelor's degree, two years of experience in the area of interest, and English proficiency were recommended for joining APN academic programs. Challenges such as infrastructure readiness, lack of interinstitutional collaboration, professional classification, and scope of practice were indicated. Facilitators such as the supportive scope of practice laws and regulations and raising awareness were projected.

Conclusion: ANLs acknowledged the critical roles of APN in enhancing patient care and the healthcare system.

Significance: This study offers valuable insights into similar contexts globally, emphasizing resource allocation and policy support to guide the introduction of APN programs in Saudi Arabia and similar contexts.



NPAPN24033

### **Development of Advanced Practice Nursing Core Competencies in Saudi Arabia: A Modified Delphi Study**

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Background: Advanced practice nursing requires a diverse set of competencies that define what advanced practice nurses need to know and be able to do to deliver safe, effective, and high-quality healthcare. Given the lack of evidence regarding core competencies and the evolution of advanced practice nursing roles in Saudi Arabia, developing core competencies to standardize educational and clinical training programs is becoming increasingly important.

Objectives: This study aimed to define the core competencies of advanced practice nursing in Saudi Arabia.

Method: The study utilized a modified Delphi study. Using snowball sampling for recruiting experts, data were collected between April and July 2023 through an online questionnaire. This questionnaire consisted of a list of 28 core competencies that were developed based on an in-depth literature review and a critical analysis of advanced practice nursing core competencies published by leading professional organizations. Two rounds of Delphi surveys were

conducted and included nurses who had obtained graduate degrees as advanced nurse practitioners or clinical nurse specialists working in clinical and academic settings in Saudi Arabia.

Results: In Round 1, 34 participants reached full consensus in 24 of the 28 core competencies, and four core competencies reached partial consensus. Based on suggestions and feedback from the participants, the investigators revised ten core competencies to reflect the improvement suggestions and created three new core competencies. A total of 26 core competencies were used in Round 2, which achieved a full consensus among the 34 participants.

Conclusions: This study identified six domains and 26 core competencies required for advanced practice nursing in Saudi Arabia.

Significance: The competency framework and the core competencies proposed in our study have the potential to guide education and training in academic programs and facilitate the implementation of advanced practice nursing in clinical settings in Saudi Arabia and similar contexts globally.



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## **Navigating advanced nurse practitioner roles in UK mental health services: a scoping review**

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Background: The Advanced Nurse Practitioner (ANP) role is becoming more common in mental health services in the United Kingdom (UK), to support capacity and capability of the workforce to meet current and future healthcare needs. Historically, ANP roles focused on assessment, diagnosis and treatment of physical health conditions, therefore considering experiences of role implementation in mental health services to inform service development and support role implementation is important.

Objectives:

- Identify and explore themes relating to experiences of ANP roles in mental health services in the UK, from perspectives of key stakeholders.
- Make recommendations for practice and policy to support role implementation in mental health services.
- Identify research priorities relating to ANP roles in mental health services.

Methods: A comprehensive search of CINAHL, MEDLINE, Web of Science, PsychNet and Google Scholar was conducted using keywords to identify relevant peer-reviewed publications and grey literature published between 2010-2022. The Patterns, Advances, Gaps, Evidence for Practice, Research recommendations (PAGER) framework was employed to analyse findings and identify themes.

Key Learnings:

- Role clarity and understanding supports successful implementation
- Support from colleagues assists development and increases confidence of practitioners
- Insufficient planning negatively impacts transitions to advanced roles
- ANP roles improve provision of person-centred care, physical healthcare delivery and offer enhanced career pathways for nurses.

Conclusion: Challenges including role understanding and planning need addressed to support successful implementation. Research examining patient experiences of ANPs is required to understand provision of person-centred care. Whilst, metrics for service evaluation can assess role integration within services and inform future policy direction.

Significance: The potential to enhance person-centred care aligns with aspirations of international advanced nursing practice. The findings of this review are not exclusive to mental health settings and provide a foundation for developing strategies, policies and frameworks to support implementation of advanced nurse roles in diverse healthcare contexts internationally.



NPAPN24028

## **Bi-directional peer-mentoring by nurse practitioner students: an Indo/American example**

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Background: Mentorship has been described as both a value and a process (Barker & Kelley, 2020). While mentorship is a value that is fostered in higher education, it has not been commonly articulated in nurse practitioner (NP) education and practice, especially in an international context.

Objective: To describe a bidirectional student peer mentoring relationship between nurse practitioner students from the US and India.

Approach: Since the inception of the Nurse Practitioner in Critical Care (NPCC) program in India in 2017, students from the US and India have shared commonalities and distinctions in education and practice at a college of nursing in South India. Indian and American students are paired during clinical rotations in the ICUs at Kasturba Hospital, Manipal, India. This approach has been implemented yearly since the inception of the NPCC program.

Lessons Learned: American students gained critical perspectives from their Indian colleagues regarding care that is provided at a very high acuity level in a resource-challenged setting. In particular, American students gained experience with tropical diseases, climate-related illness, and critical non-communicable diseases. The Indian students received important validation that their education and future role could provide sustainable workforce solutions in settings that experience acute physician shortages.

Conclusion: Bidirectional exchange and student mentoring can provide important insights for student in both high-income and low-middle income countries. In particular, the program provided support and encouragement to NP students in low to middle-income countries where the role is emerging.

Significance: Bidirectional peer mentoring by NP students can support the developing NP role in low-middle income countries. Students from high-income countries are informed by clinical practices that can augment their training and education.



### 3.6 APN's Role in Shaping a Healthier, More Equitable World

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#### **Nurse Anesthesiology, Universal Health Coverage (UHC), the Sustainable Development Goals (SDG) and the Advanced Practice Nurse (APN) Role**

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The World Health Organization (WHO) designates access to surgery as an essential component of primary care, and a benchmarked target of UHC. Safe surgery requires skilled anesthesia. The International Federation of Nurse Anesthetists (IFNA) and ICN promulgated guidelines for the Advanced Practice of Nurse Anesthesia that describe global standards for education and practice, expanding the role of nurse anesthetists (NA) beyond peri-operative care.

We present evidence and arguments for the value-added to APN roles by nursing credentials and nursing experience, positioning nurse anesthetists to support progress toward realization of UHC and meeting SDG benchmarks.

After review of the literature using key terms UHC, SDG, anesthesia, nurse anesthetist, surgery, right to health, WHO, ICN, IFNA, etc., purposive interviews with NAs in a variety of practice and geographic settings were conducted. Evidence was mined for the relationship between NA/APN role and UHC/SDGs.

NA/APNs who practice at the top of their license are central to achieving UHC/SDG targets to assure essential surgery and other services are available when and where needed without impoverishing expense.

The APN role extends the value of NAs beyond reaching SDG essential surgery benchmarks to emergency and critical care, triage, and pain and airway management, along with commitments to advocacy, scholarship, and leadership. The nursing-based competency that underpins advanced training expands NA's roles in normal times and positions them to contribute specialty expertise during emergencies or crisis, such as pandemics or disasters.

Globally, anesthesia is practiced by individuals possessing various professional credentials including NAs, physicians, anesthetic officers, and unskilled assistants. The nursing credential, elevated to international APN standards, amplifies the value-added to advanced practice or specialized roles in any context. This presents a potent advocacy argument for local, national, and global policy that recognizes nurse anesthetists as agents of advanced nursing practice positioned to promote reaching UHC/SDG benchmarks.



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#### **How APNs can address the complex modern determinants of chronic illness: An opportunity to lead the way**

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Background: Lifestyle is critical to health, wellbeing, and the prevention of non-communicable disease yet health professionals receive little education in relation to lifestyle counselling and are therefore not confident in incorporating lifestyle issues into their clinical practice (Mechanick and Kushner, 2016). Advanced Practice Nurses (APNs) are well placed to lead on health improvement through facilitation of self-care and increasing patient knowledge (Scottish Government, 2021) however there is no explicit reference to addressing issues of lifestyle or behaviours in the clinical pillar of the core competencies for APNs in Scotland (Scottish Government, 2021). Inequalities in health are complex, however preventing ill-health commands a focus on lifestyles that follow the social gradient and account for most chronic disease such as smoking, diet, and alcohol intake (Marteau et al, 2021).

Objectives: To gain an understanding of how Advanced Practice Nurses incorporate addressing issues of lifestyle into their practice.

Methods: Systematic literature review

Results: Preliminary scoping suggests that APNs do not consistently address lifestyle issues in their clinical practice.

Conclusion: Efforts to improve lifestyle should be integral to the role of the APN because of its potential to improve health and reduce health inequalities. Further research and awareness raising is required.

Significance: In view of the rising prevalence of lifestyle associated illness along with widening health inequalities it is critical the APNs feel equipped and confident in engaging with supporting lifestyle changes.

Marteau, T.M., Rutter, H. and Marmot, M. (2021) 'Changing behaviour: an essential component of tackling health inequalities', *BMJ* (Online), 372, pp. n332-. Available at: <https://doi.org/10.1136/bmj.n332>

Mechanick, J.I. and Kushner, R.F. (eds) (2016) *Lifestyle Medicine A Manual for Clinical Practice*. 1st ed. 2016. Cham: Springer International Publishing.

Scottish Government (2021) *Transforming Nursing Roles Advanced Nursing Practice- Phase II*. Chief Nursing Officer Directorate. Available at: <https://www.gov.scot/publications/transforming-nursing-roles-advanced-nursing-practice-phase-ii/> (Accessed 04.01.2024).



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## **Nurse Practitioner Transition to Practice Programs: Operational Steps to Implementation of Evidence Based Standards for NP Fellowships**

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Background: Nurse Practitioner (NP) Leaders must understand evidence-based standards for transition to practice programs (TTP) such as residency or fellowship programs to ensure NPs have the necessary skills to provide safe, high-quality, clinically competent, patient-centered care as members of interprofessional healthcare teams. The mandatory reduction in medical resident duty hours implemented by the Accreditation Council for Graduate Medical Education (ACGME) has increased the need for NPs to assume greater patient care responsibility in the acute care setting (Harris, 2014).

Objectives: Discuss why transition to practice programs are vital for NPs

Methods/Approach: Transition between the academic and practice settings can be challenging for newly certified NPs. TTP programs can address these identified gaps, facilitating a smoother transition for NPs from the academic to the practice setting, or between different practice settings. TTP programs consistently demonstrate a positive return on investment, most often through decreased turnover and vacancy rates, and an increased positive work environment through improved nurse-physician collaboration (Bratt, 2013; Kramer, Maguire, & Brewer, 2012). NP interest in residency or fellowship programs is vital.

Key Learnings: Utilizing evidence-based standards for TTP programs that focus on domains such as program leadership; organizational enculturation of NPs as clinical leaders; residency and fellowship program design; hands-on on clinically based learning; professional development; and outcomes related to quality, safety, and patient experiences creates a framework for organizations to evaluate and strengthen existing TTP or to develop new TTP utilizing best practices.

Conclusion: NP Leaders must ensure NPs transition safely, efficiently, and effectively into complex healthcare settings and new practice areas. NPs must be capable of providing high-quality, patient-centered care as independent providers and members of interprofessional teams.

Summary: Implementing TTP programs that use evidence-based standards is one cost-effective strategy to achieve these outcomes.



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## **Navigating the pathway to co-designed Nurse Practitioner research in New Zealand**

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Background: Te Tiriti o Waitangi (te Tiriti), is New Zealand's (NZ) foundational document, signed in 1840 between the Māori people and the British Crown. Health research in NZ is required to meet te Tiriti obligations. The first Nurse Practitioner (NP) was registered in 2001 and the first Māori NP in 2003. Despite integration of the role across health care, there is a lack of data about NP outcomes. An urgent evaluation of the role, especially regarding patient and economic outcomes, is required. Therefore, we sought to collaborate and discuss a proposed evaluation of the NP role with Māori NPs

Methods: In collaboration with Māori nurse leaders, a two-day Marae noho (meeting sit in) was attended by Māori NPs, hosted at Waimanoni Marae (traditional meeting house). Wānanga (discussion) offered guidance, ideas, and insight into the proposed research including the journey to the research question, data collection, analysis and dissemination.

Key Learnings: Māori NPs showed strong support for the research, with many expressing interest in becoming co-investigators. A Māori rōpū (Group) will also be established to guide the research. Effective communication, collaboration and a commitment to honouring te Tiriti obligations are essential elements to ensuring high quality research outcomes. These efforts are crucial in informing health practice and policies, ultimately contributing to improving health outcomes.

Conclusion: The Marae noho was guided by Māori values and principles which fostered partnership and collaboration with Māori NPs to shape the research. Wānanga provided opportunity for Māori nurses to have a voice, respect ancestral practices, and create new relationships which provided a pathway to collaborative decision-making.

Significance: The Marae noho represents a pivotal phase in the research on NP outcomes in NZ. The significance is in the impact of shaping the co-designed NP research and informing policy development within the broader NZ Health and Disability system.



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### **Advanced practice nursing initiatives in China, moving towards the nurse practitioner role: Experiences from the field**

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Aim: This paper discusses the development and progression of the advanced practice nurse practitioner role in China.

Background: Providing adequate primary health care is problematic in China. The World Health Organization and International Council of Nurses proposed that nurses, specifically advanced practice nurse practitioners with the requisite skills in disease prevention, diagnosis and management, can be key to solving the primary care issue.

Sources of evidence: This paper utilized publications from PUBMED, CINAHL, CNKI, VIP, policy papers, websites, workgroups, conferences, and the experiences and knowledge of authors involved in leading and moving forward key events and projects.

Discussion: China shows great interest in the role of senior practicing nurses, and ever-increasing requests for assistance regarding initiation, development and integration of advanced practice roles. Initiatives to advance the roles have been supported by the International Council of Nurses Nurse Practitioner/Advanced Practice Nurse Network and Global Academy of Research and Enterprise. Next steps and projects for future role development are discussed.

Conclusions: There is a progression towards the adoption of the advanced practice nurse practitioner role in China and further mechanisms are suggested to allow full uptake and utilization.

Implications for nursing practice: Prioritization and investment in initiatives implementing nurse practitioner/advanced practice nurse roles in China allows nurses to pursue further education, advanced role and leadership opportunities consistent with Nursing Now goals.

Implications for health policy: Implementation of nurse practitioner/advanced practice nurse roles increases the primary care workforce, consistent with recommendations and priorities in the World Health Organization Global Strategic Directions for Nursing and Midwifery 2021-2025 helping countries ensure that nurses optimally contribute to achieving universal health coverage and other population health goals.



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### **Nurse Prescribing in Chile: Perceptions of Health Professionals and Administrators**

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Background: Nurse prescribing has been introduced in many countries with benefits for patients, clinicians, and healthcare organizations. Strengthening the nursing capacity to develop prescribing skills will provide the necessary services to the greatest number of people.



Objective: To explore the perceptions of health providers and administrators regarding the implementation of the nurse prescribing role.

Methods: Qualitative descriptive study to conduct five online focus groups comprised of 45 register nurses, 5 interviews with physicians and 5 interviews with health administrators from health organizations in Chile. Transcripts were analyzed using thematic content analysis and holistic triangulation of results.

Results: The overarching themes included nurse prescribing role within the healthcare team, nurses professional training for prescribing, and prescribing models for nurses. Participants agree on some barriers for role implementation, i.e., lack of educational preparation, legislation and certification processes to regulate nurses prescribing practice. Implementation of prescribing role will result in conflict within the health team for unbalance of power and dissimilar hierarchy between its members. Participants expect that nurses with postgraduate studies will implement the prescription practice supported by physicians. Professionals and administrators agree that prescribing should start with a protocol-based model to increase complexity and autonomy of nurses over time.

Some nurses recognize to help physicians informally with prescribing functions, nevertheless, when considering their own professional responsibilities, they feel unenthusiastic to assume this new role. Physicians and administrators emphasize on the lack of nurse's education to prescribe medicines and the conflicts that will surface with medical and non-medical professionals if the nurses assume prescribing privileges.

Conclusions: Nursing prescribing licenses requires education, certification, legislation and the support of health providers and administrators.

Significance: A collaborative approach toward implementation of prescription by protocol model may result in effective and safe treatments that fit the needs of patients and improve the health outcomes.



### 3.7 Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

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#### A Global Perspective on the Concept of the Added Value of Primary Healthcare Nurse Practitioners

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**Background:** The World Health Organization emphasizes developing advanced practice nursing (APN) roles, including nurse practitioners (NPs), to strengthen healthcare systems, particularly in primary healthcare. Primary healthcare nurse practitioners (PHCNPs) are pivotal in health promotion, disease prevention, and proximity care. While a concept analysis using Rodgers' approach explored the added value of NPs, the specific distinction for PHCNPs is lacking. Rodgers advocates repeated analyses with updated evidence to develop a concept. A recent umbrella review highlighted the contributions of APNs globally, including PHCNPs, but did not connect findings to the added value concept.

**Objectives:** To gain a global perspective of PHCNP roles and clarify and define their added value.

**Methods:** A secondary analysis of the studies identified in the umbrella review is ongoing, using narrative synthesis and Rodgers' evolutionary approach to concept analysis. Antecedents, attributes, and consequences of the added value of PHCNP will be identified and put into context according to disciplinary perspectives, time, and place.

**Results:** The umbrella review identified 117 systematic reviews, with 52 focused on PHCNPs in 33 countries. A global perspective of PHCNP practice will be presented at the patient, provider, and healthcare system levels, along with their representation in different countries. The concept analysis will detail attributes, antecedents, and consequences of PHCNPs' added value, providing a conceptual definition.

**Conclusion:** This presentation will offer a global PHCNP practice perspective, defining and clarifying their added value, while considering disciplinary perspective, publication time, and country-specific contexts.

**Significance:** A global understanding of PHCNP practice and its added value is crucial for guiding practice, education, research, role implementation, and policies, addressing a significant gap in understanding their multifaceted contributions in primary healthcare.



NPAPN24003

#### Symposium: Writing a Successful Abstract for Presentation at a Professional Meeting

**Dr Rodney W. Hicks**

Western University of Health Sciences

**Background:** Creating an abstract that is selected by the conference organizing committee is the first step toward presentation. Unsuccessful abstract submissions are common and are a stumbling block for APNs who wish to present either research or clinical information at a conference via poster or podium formats.

**Objectives:** This presentation will provide attendees with the knowledge needed 1) to create an abstract that meets criteria for selection; 2) to match conference objectives with presentation content; and 3) to follow directions for title and content elements.

**Approach:** The importance of the abstract is stressed as it is key to being able to present at a conference. Matching the presentation to the intent and overarching themes of the conference is an essential ingredient to success and this factor is emphasized. Further, it is important for success that the abstract include relevance and significance to the conference attendees-this is essential at an international conference where attendees at varying levels of practice and role definitions must be appealed to. The approach utilized will be straight forward elements presented via oral presentation and power point slides that are clear, concise, and easy to follow.

**Key learnings:** The abstract submitted to the conference organizing committee represents the proposed conference presentation and is an important tool that must be strategically leveraged to highlight the goals, intended outcomes, and content. Successful submissions must be timely and follow the abstract guidelines detailed in the directions explicitly.

Conclusion: Conference abstract submissions are the first step and key ingredient toward being accepted for presentation at a professional conference.

Significance: This presentation is highly significant for APNs who wish to add presentations to their professional experience. By following the elements provided, they can become successful at being invited to give scholarly presentations at professional meetings, which is an important aspect of their role.

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## **Design and Delivery of a Successful Professional Poster**

### **Dr Judith A. Berg**

University of Arizona College of Nursing

Background: Poster presentations are increasingly utilized for dissemination of scientific and clinical knowledge at conferences, as this is an efficient way to increase the number of scholarly presentations. Most APNs do not receive education about this skill development in their basic programs, and this is evident when viewing poster submissions at conferences.

Objectives: The purpose of this presentation is to educate on 1) essentials of poster development and presentation; 2) types of posters and their advantages and disadvantages; 3) content and design; and 4) dos and don'ts of these presentations.

Approach: This oral presentation will utilize power point slides to detail poster essentials, types, content and design, and how to avoid elements that detract or dissuade attendees from viewing a poster. It will also include the essentials of attending the poster at the professional meeting.

Key Learnings: Following conference directions is an important first step in poster development. A successful poster includes careful attention to elements to be included, font size and type, layout, use of color and images, and attention to use of positive and negative space. At the meeting, the APN presenter must attend the poster at the designated time, be prepared, have a professional appearance and demeanor, and be receptive to questions and expressions of interest. Together these elements direct the creation of a professional poster presentation that attracts colleagues' interest and promotes scholarly dialog.

Conclusion: Poster presentations are an increasingly important mode of disseminating research and clinical information at professional meetings. However, poster creation must be carefully done so that important content is provided, highlighted and the poster attracts attention in the context of sessions that include many other posters.

Significance: The content of this presentation provides a template for APNs to create and present a professional poster that details the intended content and attracts attendees.

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## **The 15 Minute Podium Presentation: Essential Ingredients that Bolster Audience Attention**

### **Mary Ellen Roberts**

Seton Hall University College of Nursing

Background: Most APNs receive little, if any, education or training on how to provide an effective podium (oral) presentation. Oral presentations are an essential skill for APNs as part of their professional role. There are tips and tricks to increase audience engagement of podium presentations and thus, deliver and highlight the important information the presenter wants to share.

Objectives: The purposes of this presentation are to 1) detail elements of an oral presentation; 2) highlight ways to improve visual elements (slides); and 3) provide tips and tricks for improving presentation skills, including appearance, confidence, and audience engagement.

Approach: This oral presentation will use power point slides to detail the important elements of the appearance of slides and highlight ways to engage the audience.

Key Learnings: Besides creating slides that visually communicate elements of the presentation, presenters must prepare their presentation to factor in the setting, time of day, size and type of audience, and whether other presentations occur in the same session. Avoid placing too much information on a single slide. Of utmost importance is that presenters practice extensively, stay within the designated 15 minute time frame, never read their slides, and not remain stationary behind the podium. Moving around and making eye contact with audience members bolsters engagement and attention.

Conclusion: There are important ways that presenters can “bump up” their podium presentations in order to increase audience engagement and expand the possibility their message is received and remembered.

Significance: The information provided in this presentation can increase the effectiveness of APN podium presentations. This is highly significant because the goal of all professional presentations is to convey important research and clinical information that is meaningful to audiences.



## 4.2 Symposium: Symposium: Advancements in Digital Health and Technology for Enhanced APN Practice

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### Advanced practice nursing students' practices, values, and beliefs about using ChatGPT in patient care: A focused ethnographic study

**Dr Abby Kra-Friedman**<sup>1</sup>

<sup>1</sup>Hadassah Henrietta Szold School of Nursing, Hebrew University, Jerusalem, Israel

**Background:** Integration of artificial intelligence in nursing and APN education is complex and nuanced. Despite criticism in academia and healthcare, ChatGPT is used by students and patients alike. By harnessing its strengths, acknowledging its weaknesses, and learning to use it effectively, advanced practice nursing (APN) educators can use this tool to increase access to knowledge and improve health outcomes.

**Objectives:** To explore APN students' practices, beliefs, and values related to ChatGPT use after attending a clinical simulation workshop using ChatGPT to build culturally competent evidence-based patient care plans.

**Methods:** For this qualitative-focused ethnography, 3 focus groups of APN students were conducted on Zoom using a semi-structured guide and open-ended questions. Researchers used Leininger's four phases of data analysis to find categories, patterns, and themes. Data collection and analysis were completed when thematic saturation was reached.

**Results:** Preliminary reflexive analysis reveals themes related to time management and reduced workload, generalized and questionably evidence-based answers, lack of empathy, and lack of a holistic approach to patient care. Students noted the significance of articulation and lack of accountability. Some had never heard of ChatGPT and learned a new skill. Students who previously used ChatGPT to write papers or presentations expressed weariness and decreased trust.

**Conclusion:** ChatGPT can be useful for academic purposes and may empower students and patients through knowledge and awareness. Learning to use ChatGPT competently, acknowledging strengths and awareness of its limitations is crucial in both student and patient use.

**Significance:** APN educators should carefully consider using ChatGPT in clinical simulation and didactic curricula. Learning to use this tool may reduce workload, improve time management, improve personalized healthcare, customize learning, and improve health outcomes. Judicious use of ChatGPT using APN skills like human reflection, critical thinking, and integration of social /environmental factors may improve APN education and care.

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### The Power of ChatGPT in Healthcare: Improving Patient Engagement and Outcomes

**Dr Rene Love**<sup>1</sup>, **Dr Jane Carrington**<sup>1</sup>

<sup>1</sup>University Of Florida, Gainesville, United States

**Background:** Starting with primitive decision support systems to precision health algorithms, AI is fully entrenched in healthcare. Generative text AI has gained momentum in healthcare and advanced practice providers need to learn how to use it as a clinical tool.

**Objectives:** Attendees will be able to 1) Describe the use of Generative Text AI in clinical practice and 2) Compare and contrast best evidence with Generative Text AI output

**Purpose:** Provide a decision-making algorithm for using Generative Text AI in clinical practice

**Methods:** Building on the literature and then piloted, we constructed an algorithm for effective and responsible use of AI Generative Text. We then aligned the process with best evidence for the advanced practice provider to use in the clinical arena.

**Results or Key Learnings:** Based on our work, we propose that effective use of Generative Text AI begins with the clinical problem, definition of the patient population, specific instructions for the clinical tool, and review of literature to ensure the output reflects best evidence. AI is useful and can be applied to generating patient teaching tools and policy guidelines among other outputs. We have developed an algorithm that infuses AI and best evidence to support patient engagement and outcomes.

**Conclusion:** Responsible use of AI does not eliminate the need for the advanced practice provider to review and appraise literature for best evidence. When used appropriately, AI can be very useful to support practice.

Significance (Impact and Reach): The presentation has application for all advance practice providers in any practice setting and instills the need to be responsible with the use of AI. AI is here to stay and it is up to us as advanced practice providers to use AI responsibly leading to improved patient safety and outcomes.

1306

### **Transforming advanced practice nursing with large language models: From concept to practice**

**Dr Brigitte Woo**<sup>1</sup>

<sup>1</sup>Alice Lee Centre for Nursing Studies, National University of Singapore, Singapore, Singapore

Background: Large Language Models (LLMs) like ChatGPT have emerged as innovative tools in nursing, offering notable benefits in patient education, diagnostic support, treatment recommendations, and administrative efficiency. This evolution in technology reflects a significant development in healthcare, suggesting a new era where advanced AI and nursing practice converge.

Objective: The objective of this discursive paper is to critically examine the role of LLMs in healthcare, highlighting their transformative potential while also addressing inherent challenges such as AI hallucinations and data privacy issues. It aims to offer a balanced perspective on the integration of these models into healthcare practices.

Methods or Approach: This paper employs a theoretical approach, discussing methodologies like prompt engineering, temperature adjustments, model fine-tuning, and local deployment. These methods are proposed to enhance LLM accuracy and ensure data security. The discussion is rooted in current practices and projected advancements in AI, providing insights into how these models can be optimised for healthcare applications.

Key Learnings: Key insights reveal that while LLMs have substantial potential to revolutionise healthcare, they are not devoid of limitations. Challenges such as AI-generated misinformation and privacy concerns are significant. The paper emphasises the necessity of addressing these issues to harness the full potential of LLMs in healthcare.

Conclusion: The paper concludes that LLMs, despite their advanced capabilities, cannot replace the intricate expertise of human healthcare professionals. Instead, they should be utilised as supplementary tools, enhancing the capabilities of healthcare providers rather than supplanting them.

Significance (Impact and Reach): The paper underscores the significant impact and reach of LLMs in healthcare, advocating for a synergistic approach where AI complements human expertise. This integration has the potential to dramatically improve patient care outcomes and advance the healthcare sector.

911

### **Chattitude Matters: Strategies to Utilize ChatGPT in APN/NP Education**

**Dr Amanda Roesch**<sup>1</sup>, **Dr Veronica Quattrini**<sup>1</sup>

<sup>1</sup>University of Maryland School of Nursing, Baltimore, United States

Background: Artificial intelligence (AI) technologies, such as ChatGPT, are expected to revolutionize healthcare and nursing education. However, many educators are concerned about the ethical implications of AI and, more specifically, the misuse of ChatGPT by students. Thus, faculty are often reluctant to support its use instead of approaching it as a tool to enhance learning.

Objectives: This presentation aims to explore opportunities for integrating ChatGPT into Advanced Practice Nurse (APN) and Nurse Practitioner (NP) education.

Approach: ChatGPT was utilized in multiple courses to augment teaching and learning. In Advanced Health Assessment (AHA), students evaluated ChatGPT-generated clinical information for specific patient scenarios in two different activities. Faculty-facilitated discussions highlighted ChatGPT's utility, inefficiencies, and inaccuracies. In a NP clinical course, ChatGPT was employed to generate treatment regimens for two diverse patient scenarios used in summative case study assessments. Students were presented with treatment recommendations from ChatGPT and tasked with evaluating their appropriateness, providing a rationale for or against use, and recommending a treatment plan. In a future activity, students will engage in role-play scenarios with ChatGPT to formulate comprehensive differential diagnoses and management plans. Faculty have also utilized ChatGPT to craft clinical cases, develop examination questions, and summarize feedback.

Key learnings: The AHA activities received positive feedback from students and faculty, aiding in the development of clinical judgment. However, some faculty were hesitant to implement the activities, acknowledging a limited

understanding of ChatGPT. In the NP clinical course, both ChatGPT questions demonstrated good discrimination (point biserial > 0.65), reflecting the need to utilize higher-level cognitive processes.

Conclusion: ChatGPT demonstrates versatility in educating APN/NP students, offering varied applications beyond traditional teaching methods.

Significance: The success of these activities underscores the potential utility of ChatGPT in diverse courses and institutions. Educators should embrace AI in teaching and evaluation strategies to enhance APN/NP education.



### 4.3 Multidisciplinary: Advancements in Digital Health and Technology for Enhanced APN Practice & Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

1593

#### **Nurse Scientists: An Emerging Role for Advanced Practice Nurses**

**Dr Dawn Stone**<sup>1</sup>

<sup>1</sup>Western University of Health Sciences College of Graduate Nursing, Pomona, United States

**Background:** The purpose of this presentation is to describe how Advanced Practice Nurses (APNs) add value to health care systems by extending their reach as Nurse Scientists. This innovative, expanded role amplifies the impact of Advanced Practice Nurses by demonstrating the breadth, depth, and scope of scientific knowledge they possess to inform the interdisciplinary health care team and improve patient care outcomes. APNs serving as Nurse Scientists facilitate translation of research at the bedside, as well as generate new knowledge to improve health care for individuals, families, diverse groups, and populations.

**Objective:** To review the multiple facets of an Advanced Practice Nurse in a Nurse Scientist role serving on interdisciplinary teams in collaborative partnerships across health care settings.

**Methods or Approach:** Podium presentation guided by slides and interactive question & answers

**Key Learning:** The APN in a Nurse Scientist role guides and facilitates research and quality improvement to ensure safe, quality care for diverse groups of patient populations, and to promote health within communities.

**Conclusion:** Advanced Practice Nurses possess a unique set of knowledge and skills that could extend their reach across health care systems as a Nurse Scientist. This emerging role amplifies the impact of the APN beyond traditional individual patient care and disease management to a population health approach while employing scientific principles to improve health care.

**Significance:** APNs serving as Nurse Scientists facilitate translation of research at the bedside, as well as generate new knowledge to improve health care for individuals, families, diverse groups, and populations.



1604

#### **Development of outcomes for the evaluation of the impact of Advanced Practice Nurses on the healthcare professional team: a modified Delphi approach**

Karolien D'hollander<sup>1</sup>, Lise-Marie Kinnaer<sup>1</sup>, Pauline Boeckxstaens<sup>1</sup>, Elsie Decoene<sup>2</sup>, Prof Kelley Kilpatrick<sup>3</sup>, **Prof Ann Van Hecke**<sup>1</sup>

<sup>1</sup>Ghent University, Ghent, Belgium, <sup>2</sup>Ghent University Hospital, Ghent, Belgium, <sup>3</sup>McGill University, Quebec, Canada

**Background:** The changing healthcare landscape needs new care models such as models including Advanced Practice Nurses (APN). The evaluation of APN focusses mainly on patient and organisational level. There is no validated set of outcomes that measures the impact of APN on the healthcare professional (HCP) team, applicable for primary, hospital, mental health and long-term care settings.

**Objectives:** To assess face and content validity of an outcome set to evaluate the impact of APN on the HCP-team.

**Methods:** The list of outcomes was composed based on a literature review and qualitative research on the impact of APN on HCP-teams. A modified two-round Delphi approach with (inter)national experts (APN, APN-researchers and -educators, nurse managers coaching APN) is ongoing to build consensus on relevance, comprehensibility and applicability of each outcome in different settings. The panel consists of minimum 10 experts per setting.

**Results:** 102 outcomes have been organised in 14 domains: innovation and quality culture, evidence-informed practice, capacity building, APN and team members' role clarity, APN acceptance and satisfaction, team members' perception of their own role, workload, job satisfaction, communication, clinical decision-making, problem-solving and conflict management, continuity of care, collaborative practice, and sense of cohesion. Besides iterative evaluation of the initial outcomes, comments and additional outcomes identified in the first round will be assessed in the second round. Results will be available at the conference.

**Conclusion:** Using a modified Delphi approach we aim reaching consensus for outcomes evaluating the HCP-team impact of APN.



Significance: A validated set of outcomes that measures the impact of APN on HCP-team level can add to a more comprehensive evaluation of APN, broader than only patient- and organizational related outcomes, in different settings. Rigorously evaluating the impact of APN is necessary for demonstrating the importance and for supporting the optimisation of the implementation of these APN.

1535

## **Telemedicine - can it support Quality of Life despite serious illness**

**Charlotte Perret-gentil**<sup>1</sup>

<sup>1</sup>Lillebaelt Hospital, Vejle, Denmark

Improving palliative care

A quality development project including the use of telemedicine and competence development of staff

Background: National audit shows lack of access to specialized palliative care.

There is a wish for increased digital collaboration between across sectors within healthcare to provide a more coherent collaboration and to make necessary knowledge available across the sectors.

Objectives: To investigate how palliative videoconferencing can improve the quality of life of citizens with palliative needs and their families admitted to nursing home for temporary stays.

To increase competences within palliative care among staff.

Methods:

A quality development project based on the Plan-Do-Study-Act cycle

Identification of citizens with palliative needs by using SPICT™.

Screening of symptoms and quality of life by EORTC-QLQ 15 PAL

Training the staff using SPICT™, EORTC-QLQ 15 PAL, and basic palliative care.

Questionnaire survey before and after training the staff and interviews of staff members.

Videoconference with a palliative care nurse, a nurse from a nursing home, and if possible, a general practitioner to provide support in symptom management and palliative care.

Results:

SPICT™ and EORTC-QLQ 15 PAL are implemented and used systematically to identify citizens with palliative needs and their symptoms.

Staff have gained more knowledge and skills in palliative care. Hence, they are more focus on palliative care needs and practice.

There is a need for increased opportunities for videoconferences and telephone consultations to provide high-quality palliative care.

There is a lack of numbers of citizens able to fill in EORTC, to give significant results in citizens' reported quality of life.

Conclusion and significance: This project has the potential to become a generic model suitable for strengthening staff-competencies in nursing homes for temporary stay and nursing homes in general.

1551

## **Artificial Intelligence- Applications for Clinical Decision Making and Nurse Practitioner Role and Responsibilities**

**Dr Varsha Singh**<sup>1</sup>

<sup>1</sup>ICN NP Network, United States

Background: As a Neuroscience Nurse practitioner, I am actively using Artificial Intelligence application that provides rapid diagnosis of large vessel strokes in my hospital and assists me in mobilizing the Neurointervention team to provide rapid neurosurgical services to the patient, thus performing a timely critical procedure and improving patient outcome.

During my "AI in Healthcare' certification course through MIT, I learnt about multiple AI applications that is all set to transform how healthcare delivery will transform in next 5 years.

Objectives:

- Nurse Practitioners will learn about role of AI in healthcare
- Nurse practitioners will learn about how clinical decisions are expedited with use of AI
- Nurse practitioners will learn about their roles and responsibilities including ethical considerations.

Methods: Personal learning through use of AI for 2 years in a specific field and learnings from certification course.

Key Learnings or results: There is little awareness about AI in healthcare and how Nurse Practitioners can utilize it to enhance their roles.

Artificial Intelligence Applications are emerging new advanced technology and the nurse practitioners must understand the nuances in becoming an expert. There will be a surge of variety of applications which are being designed to assist healthcare providers. The new technology will not only assist Nurse practitioners to use AI to collect patient data, but also assist nurse practitioners towards quick diagnosis through AI algorithms and clinical decision making through workflow algorithms that utilize quick review of clinical guidelines.

Artificial Intelligence applications have ability to transform patient-provider conversations on mobile devices into temporary transcripts, generating structured SOAP notes.

Conclusion: The presentation will provide key information to the audience about various AI applications available and its appropriate use in NP practice.

Significance: The NPs must be aware of and continue to harness all new advance technologies such as AI in healthcare.



## 4.4 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

1505

### Ontario Nurse Practitioners - Leading Health Provincially, Nationally and Globally

**Dr Michelle Acorn, Barbara Bailey**

<sup>1</sup>Nurse Practitioners' Association of Ontario, Toronto, Canada, <sup>2</sup>University of Toronto, Toronto, Canada

Background: In Canada over 7000 Nurse Practitioners (NPs) are employed in direct patient care. The overall supply of NPs grew 11%. Internationally educated NPs comprise 4% of the surplus. Ontario, the second largest province in Canada, leverages access to universal health coverage integrating over 5000 NPs within the publicly funded federated health system. The vast advanced practice nurse (APN) landscape and models of primary, secondary, tertiary to quaternary care will be illustrated, including the integration of the Clinical Nurse Specialist (CNS) and NP roles across community, public health, hospitals, long term care, corrections and academia.

Objectives: 1. Understand the APN/NP role evolution, current opportunities and existing barriers in Ontario, Canada.  
2. Learn how to optimize autonomous NP clinical practice, leadership and value-add outcomes.  
3. Appreciate the vital role of associations to represent and support APN members while influencing policy.

Key Learnings: Lessons learned from navigating autonomous scope of practice authorization (broad prescribing and diagnostics, and admission and discharge), including legislation, regulation, education, and change management will be discussed.

Hot topics will be shared including pay equity, compensation, Nurse Practitioner Led Clinics, NP Most Responsible Provider, Independent Practice, Nurse Anesthetist, Medical Assistance in Dying (MAID), medical marijuana, COVID-19 response, title protection and governance.

Conclusion: Utilization of all the domains of practice is essential to maximize APN contributions and positive practice environments as clinicians, leaders, educators, preceptors, collaborators, capacity builders, scholars, and quality improvers for retention and recruitment of nurses.

Significance: A strong professional association collaborates within the QUADS (governments, regulators, educators, employers, and unions) to bolster investments in NPs, and to enable and empower them to improve health outcomes. It is imperative that NPs have a voice and speak on behalf of NPs as pan- Canadian and global leaders.



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### Knowledge and attitudes toward nurse practitioner among senior nurses in tertiary hospitals in China: a multi-center cross-sectional study

**Chunyan Li<sup>1</sup>**, Head Nurse Minhui Dai<sup>1</sup>, Lan Hu<sup>1</sup>

<sup>1</sup> Xiangya Hospital of Central South University, Changsha, China

Backgrounds: Globally, nurse practitioners (NPs) represent a rapidly growing workforce to provide high-quality and cost-effective care in response to the widespread physician shortage and increasing demand for chronic care. NPs are relatively new in China, and no literature regarding nurses' knowledge of and attitudes toward NPs could be identified. This study aimed to describe senior nurses' knowledge and attitudes and perceived facilitators and barriers of NPs in China.

Methods: A cross-sectional online survey was conducted among 412 senior nurses in Hunan Province from December 2021 to January 2022. The Knowledge and Attitudes towards Nurse Practitioners Questionnaire (KANPQ) was developed based on the Delphi method, which included 30 items under three dimensions. Multivariate linear regression was conducted to explore influencing factors of senior nurses' attitudes toward NPs.

Results: The average KANPQ knowledge score was  $68.56 \pm 22.69$ , with 55.09%, 10.20%, and 34.71% of participants showing good, moderate, and poor levels of knowledge, respectively. The average KANPQ attitude score was  $7.79 \pm 1.72$ , with 65.3% thinking NPs were necessary and 69.9% expressing willingness to become NPs. Nurses with higher professional titles and knowledge of NPs had more positive attitudes toward NPs. The three most frequently mentioned barriers to NP implementation were patient trust, laws, and education.

Conclusions: Our study suggests that senior nurses' knowledge of NPs is moderate, and there is still much room for improvement. Senior nurses with higher professional titles and more knowledge of NPs have more positive attitudes toward NPs. To promote the implementation of NP roles in China, we need more education and training programs, more supportive policies and regulations, and more understanding from stakeholders.

Significance: Our findings provide important insights into Chinese senior nurses' knowledge and attitudes toward NPs, as well as helpful guidance to inform policy priorities to strengthen the education, research, and services of NPs in China.

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### **Untapped Potential: XXX's Advanced Practice Nurses and Global Partnerships**

#### **Dr Rebecca Silvers**

<sup>1</sup>University of California San Francisco Institute of Global Health Sciences, San Francisco, United States, <sup>2</sup>University of California San Francisco School of Nursing, San Francisco, United States

Background: Across the globe, advanced practice nurses (APNs) play a pivotal role in healthcare as leaders, researchers, and frontline providers. The development of the APN role and scope varies by region and is still developing in many countries of the world. Academic partnerships provide an opportunity to support APN development through collaboration and shared learning. At XXX, more than 800 APNs with strong clinical, academic, and leadership skill sets are employed; however, APNs are underrepresented in XXX's global initiatives and partnerships.

Objectives: This study aimed to understand XXX APNs' interest and expertise in the field of global health sciences, along with their perceived barriers to engagement.

Methods: A 21-question survey on the Qualtrics platform was distributed via email to all APNs at XXX utilizing the modified Dillman method.

Results: Eighty-one APNs (85% nurse practitioners, 9% nurse educators, and 6% certified registered nurse anesthetists) responded to the survey. They reported a wide range of clinical expertise from pediatrics (29%) and critical care (17%) to reproductive health (8%) and infectious diseases (4%). Eight nine percent (n=72) of respondents had experience working with partners in low- and middle-income countries and 95% (n=77) were interested in global opportunities but cited their top three barriers as time off from work (88%), costs of travel (75%), and an unclear pathway to participation in global health initiatives (66%).

Conclusion: At XXX there is untapped potential within the APNs' experience and expertise in the field of global health sciences. XXX's APNs are interested in engaging in global partnerships that utilize their skillset to support the growth of APNs and impact population health.

Significance: Academic medical centers and global teams must address barriers to APN participation in global partnerships. In 2022, the XXX Center for Global Nursing was founded to support the engagement of APNs in global initiatives.

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### **For the Love of a Clinical Nurse Specialist: The Value of a CNS in a Canadian Health Authority**

#### **Tannis Andersen<sup>1,2</sup>, Michele Tobin<sup>1,2</sup>**

<sup>1</sup>Interior Health, Kelowna, Canada, <sup>2</sup>University of British Columbia Okanagan, Kelowna, Canada

Background- Our health authority places great value and emphasis on Regional Clinical Nurse Specialist (CNS) roles within 15 specialty program areas of care for rural, remote and urban communities. This includes CNS portfolios for Parenteral and Transfusion Practices and Primacy Care.

Objectives: Highlighting how the two CNSs roles collaborate through the health authority and with a local post secondary nursing education institution.

Methods: Using the four domains of the Pan-Canadian Core Competencies for the Clinical Nurse Specialist, the CNSs will outline how they lead and impact the advancement of nursing practice not only at a health care system level, but also at a key educational level.

#### **Key Learnings:**

- Clinical Care domain- care coordination, expertise consultation and collaboration.
- Systems Leadership domain- change management, improving care delivery, advocating for patient care, and influencing nursing practice.
- Advancing Nursing Practice domain- development of evidence informed programs, education, policies, and clinical decision support tools specific to their specialty in the health authority and the post secondary educational institution.

- Evaluation and Research domain- climate of clinical inquiry, support quality improvement projects and translate and apply research findings to front line clinical practice.

Conclusion: Leveraging the full scope of the Regional CNS role allows for local and systemic health care advancement for nursing practice in all four core competency domains. An additional bonus is the satisfaction and love that the CNSs have for their work supporting retention and recruitment in these advanced nursing practice roles.

Significance: Improved patient outcomes, standardization of evidence-based nursing practice, relationships and collaboration between portfolios established and maintained, undergraduate and graduate advancement of nursing education.



## 4.5 Investing in the APN Health Workforce

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### **Bridging the Gap: Evaluating the Impact of a Six-Month Residency Program on Nurse Practitioner Trainees' Transition to Independent Practice**

**Sarah Crowe<sup>1</sup>**

<sup>1</sup>Fraser Health, Surrey, Canada

**Background:** The widespread integration of Nurse Practitioners (NPs) across Canada in diverse healthcare settings, catering to complex patient needs, has given rise to a transitional phase for NPs as they strive to feel fully confident and competent in practicing at their maximum capacity. Acknowledging this challenge, a six-month residency program was established to offer structured support, mentorship, and skill development during this pivotal transition.

**Objective:** This presentation seeks to evaluate the experiences of NP residency trainees who engaged in a six-month residency program designed to facilitate their transition to independent practice. The objective is to gauge the program's effectiveness in boosting trainees' confidence, competence, and overall readiness for autonomous clinical roles.

**Approach:** This study employs an interpretive descriptive approach, analyzing interview data to gain deeper insights into NP residents' experiences. The presentation will detail the experiences of participating NPs, emphasizing the program's impact on their transition and current job satisfaction.

**Results:** Preliminary findings indicate a substantial contribution of the residency program to the successful transition of NP trainees to independent practice. Trainees report increased confidence in clinical decision-making, enhanced adaptability, and heightened professional satisfaction. The presentation will showcase specific instances of successful program components and highlight trainees' reflections on their journey through the residency.

**Conclusion:** The evaluation underscores the positive influence of the six-month residency program on NP trainees' transition to independent practice. Through targeted support and structured learning, the program aids in cultivating a resilient and self-assured advanced practice nursing workforce.

**Significance:** This presentation is crucial in emphasizing the significance of investing in the advanced practice nurse workforce through well-structured residency programs. The findings provide valuable insights for healthcare organizations and educational institutions aiming to enhance NP graduates' preparedness for the intricacies of autonomous clinical roles, ultimately contributing to improved patient care and heightened efficiency in the healthcare system.



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### **Role and impact of advanced practice nurses on AIDS patients in community setting: A scoping review**

**Yanran Liang, Runfang Guo**

<sup>1</sup>University Of Electronic Science And Technology Of China, Chengdu, Sichuan Province, China, <sup>2</sup>Chengdu University of Traditional Chinese Medicine, Chengdu, Sichuan Province, China

**Background:** Human immunodeficiency virus (HIV) infection is a related public health problem worldwide. Advanced practice nurses (APNs) working in community are the point of contact and referral for people with AIDS entering treatment. Although APNs play an important role in the community as practice leaders, we have not found any studies summarizing the role and impact of APNs on people with HIV in community Settings.

**Objectives:** To review the literatures on the nursing of AIDS patients by APNs in community Settings and to summarize the role played by APNs.

**Methods or Approach:** A scoping review was conducted in accordance with Arksey and O'Malley's framework. Extensive research searches were conducted using five electronic databases: Pubmed, CINAHL, Web of Science, Embase, and CINAHL Completee.

**Key learnings or results:** The search identified 1,014 papers/references of which 7 were included. Community-based APNs implemented individualized interventions for HIV/AIDS patients, especially those with severe mental illness, improving biological indicators and quality of life. APNs conducted psychological screening for women with HIV/AIDS to assess and intervene in time for risk tendencies such as suicide. For HIV pre-exposure prophylaxis, APNs facilitated sexual risk assessment and PrEP screening in HIV patients. In addition, by working with community health departments, APNs can provide continuous community care for people living with HIV, helping to reduce the burden of disease.

**Conclusion:** Resources for primary health care for AIDS patients are currently strained. APNs in community can improve the symptoms of AIDS patients, optimize the pre-exposure prevention, and reduce the social burden. In the future, APNs in community can be increased and promote the better development of the primary health care system.

Significance: To summarize the role and influence of APNs on AIDS patients in the community, and promote the attention and development of APN in the community.



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### **Nurse Practitioner Urgent Care Post Graduate Residency**

**Kathleen Sullivan, Dr Michelle Sims**, Cheryl Rivard, Dr Sheila Turris, Angela Remocker

Urgent and Primary Care Centres (UPCCs) are a growing part of the Canadian healthcare system. These centres are placed along the care continuum between emergency departments and patient medical homes. Healthcare providers working in this setting need to have knowledge, skills, and expertise in managing acute and urgent health conditions. However, the current curriculum for nurse practitioner (NP) programs in British Columbia, Canada, has a focus on family medicine. The UPCC Post Graduate Residency Program was introduced to address this issue to provide targeted education, skills, and mentorship for new-to-practice NPs. The advanced education program included musculoskeletal, ophthalmology, pediatrics, vulnerable populations, internal medicine, infectious diseases, and advanced suturing sessions. Additionally, mentors were assigned to each NP resident to provide enhanced support and coaching. A pre- and post-evaluation was conducted to assess clinical background and competency across various domains. The primary objective of this project is to build and maintain a strong workforce to meet the demands of the UPCCs.



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### **Creating Connection and Belonging Enhances APN Students' Confidence**

**Dr Kathy Trotter**<sup>1</sup>, Dr Bonnie Hepler<sup>1</sup>, Dr Amie Koch<sup>1</sup>, Dr Anne Derouin<sup>1</sup>

<sup>1</sup>Duke University School of Nursing, Durham, United States

Background: Healthcare workers are particularly vulnerable to stress and emotional fatigue. When students feel supported and have a sense of belonging to their university, they are more likely to successfully matriculate, graduate on time, and remain in the professional workforce. Realizing our school's vital role in cultivating students' resiliency, we sought to foster inclusiveness, self-care, and mental health support. We explored the impact of peer-engaged teamwork, social activities, mindfulness practices during in-person learning experiences for the 2-3 day on-campus intensives (OCI) for Advanced Practice Nurse (APN) students. Our aim was to cultivate students' feelings of connection and belonging while learning predominately through a distance-based (DB) educational program.

Method: A qualitative descriptive design was used to evaluate data from seven cohorts of NP (family and women's health) students who participated in at least one OCI over a 10-semester period. During the intensive, intentional activities focused on student support, peer connection, and engagement with their university. Students anonymously responded to two open-ended questions about their experience following each on-campus day. An 'a posteriori' content analysis of their responses identified themes.

Results: Ninety-five (95) APRN students participated in the evaluation. Four themes were identified through content analysis:

1. establishment of community connection,
2. enhanced confidence and comfort,
3. shared experience of anxiety and difficulties
4. feeling supported and grateful.

Conclusion: For distance-based APN educational programs, intentional supportive activities during on campus sessions promote students' confidence, decrease anxiety, and enhance a sense of belonging. This may prepare NPs for careers in the workforce by promoting self-reflection, communication, and skills to establish community. Further research on community engagement and the impact on workforce stability is indicated.

Significance: Fostering a sense of community and belonging for APN students has implications for student well-being and the work-force pipeline.



## 4.6 Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

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### Leveling the Field: The Integral Role of Nurse Practitioners in Interprofessional Health Care Teams to Alleviate Medical and Social Disparities

**Lianne Dulstrud**<sup>1</sup>

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**Background:** Complex care is a nurse practitioner (NP)-led interdisciplinary team that provides care coordination, collaboration, and support to ensure care continuity for children with medical complexity. However, for some children, their medical needs are eclipsed by their social complexities. This is the reality for many families coming to Canada seeking specialized healthcare for children with serious medical conditions.

**Objective:** To exemplify the social challenges faced by medical refugees, emphasizing the role of NPs in a coordinating capacity to alleviate disparities. The NP-led Complex Care team provided a collaborative partnership between healthcare providers and the family.

**Methods/Case Study Analysis:** A family comes to Canada as refugees seeking care for their children affected by a rare and progressive, life-limiting disease. The children's medical needs can be adequately addressed by the primary specialized team, but the family's social challenges complicate provision of that care. This includes but is not limited to language barrier, illiteracy and cultural isolation that negatively impacts the ability to navigate public transit to access health care, ensure consistent and correct medication administration, and provide informed consent. Despite the social supports available to immigrants to Canada, these are insufficient to navigate the nuances of health care.

**Results:** By analyzing the intersection of a holistic lens and social determinants of health, inequities are highlighted.

**Conclusion:** It is evident that interprofessional collaboration is essential to optimizing healthcare access and outcomes for vulnerable populations.

**Significance:** The coordinating NP role is integral to bridging gaps between social and medical complexities.



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### The Impact of Advanced Practice Nurse (APN)-Led Precision Weight Management Model on Obese Patients

**Nan Wang**<sup>1,2</sup>, Lead Nurse Li Yang<sup>1</sup>, Zhenzhen Sun<sup>1</sup>, Lead Nurse Xiaozhen Zhu<sup>1</sup>, Zi Jin<sup>1</sup>, Xueyue Zhang<sup>1</sup>

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**Background:** This study examines the impact of an APN-led precision weight management model on obese patients, highlighting the need for personalized interventions in obesity management. Considering obesity's role as a major risk factor for chronic diseases, this model integrates nutrition advice, behavioral change, and regular follow-ups, aiming to improve overall health outcomes for obese individuals. The research supports APN's critical role in obesity management, offering new insights into this field.

**Objective:** To assess the effectiveness of a novel APN-led integrative medicine model for weight management in obese patients. The study aims to comprehensively analyze its advantages over standard care methods.

**Methods:** A randomized controlled trial was conducted at a tertiary traditional Chinese medicine hospital's endocrinology department in 2023. A total of 86 obese patients were enrolled and randomly allocated into two groups. The experimental group, comprising 43 patients, received an APN-led integrative medicine intervention. The control group, also consisting of 43 patients, underwent standard health management. The study aimed to rigorously evaluate the impact of the intervention by comparing changes in BMI, waist-to-hip ratio, negative emotions, and quality of life scores between the two groups pre- and post- a 6-month intervention period.

**Results:** After the intervention, notable improvements were observed in the experimental group compared to the control group. The BMI values were  $23.18 \pm 0.60$  kg/m<sup>2</sup> and  $25.27 \pm 0.96$  kg/m<sup>2</sup>, waist-to-hip ratios were  $0.79 \pm 0.05$  and  $0.87 \pm 0.08$ , Self-Rating Anxiety Scale scores were  $50.27 \pm 4.35$  and  $54.98 \pm 5.08$ , and self-management scores were  $556.92 \pm 50.14$  and  $593.54 \pm 61.48$ , respectively. These differences were statistically significant ( $P < 0.05$ ).

**Conclusion:** The APN-led model demonstrated marked effectiveness in weight management, symptom relief, and enhancing emotional well-being and life quality.



Significance: This study provides insights into specialized nursing approaches for chronic disease management. Its findings advocate for integrating such models in healthcare, potentially shaping obesity care policies and clinical practices.

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### **Look closer: promoting universal health coverage through advanced practitioners in homeless and inclusion health**

Prof John Unsworth<sup>1</sup>, **Dr Crystal Oldman<sup>1</sup>**, **Dr Agnes Fanning<sup>1</sup>**

<sup>1</sup>The Queen's Nursing Institute UK, London, United Kingdom

Background: Homelessness is often described as an invisible problem. Homelessness includes people living on the streets, individuals in shelters and people sleeping with friends and family on a non-permanent basis (sofa surfers). People who are homeless experience problems accessing healthcare and this together with a higher incidence of drug and alcohol problems reduces life expectancy to 45 years for men and 41 years for women.

Objective: Recognising the healthcare needs and challenges around access for this population we set out to define advanced practice standards for homeless and inclusion health nurses.

Approach: Working collaboratively with organisations supporting homeless people, nursing professional bodies and representatives of the four United Kingdom health departments we established an expert standards reference group. The group met over a 9 month period developing, refining new standards and eventually arriving at a consensus which was then adopted as the standard for homeless and inclusion health nurses.

Key learning: Collaboration was key as well as considering the various clinical services for people who are homeless including street outreach teams, specialist nursing teams supporting shelters and teams working in health centres.

Conclusion: The standards are now being used to develop homeless and inclusion health nursing courses to support the development of the workforce in these areas.

Significance: The new standards are supported by a wide range of organisations and are being used by UK Universities to develop new courses to prepare the future workforce in this important area.

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### **A sustainable APN workforce in future healthcare**

**Prof Ann-Chatrin Lingvist Leonardsen<sup>1</sup>**

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Background: The International Council of Nurses (ICN) defines Nurse Anesthetists (NAs) as Advanced Practice Nurses (APNs). The NA education, context, and scope of practice vary. NAs are qualified to provide anesthesia, pain management, and related anesthesia services to patients of all ages, health status and levels of acuity. However, state legislators are influenced by factors other than evidence to make policy decisions for NAs.

Objective: to illustrate the development of APN roles, and factors that may impact these, using the NA as example.

Approach: 1) cross-sectional studies in 1979, 1989, 1999 and 2018, examining NA's scope of practice (N=2171), 2) a qualitative study exploring NAs' (n=9) and anesthetists' (n=9) perspectives on digital anesthesia information management systems (AIMS), and 3) a cross-sectional study on professional developers' (n=60) and managers' (n=30) experiences with master's degrees.

Results: The scope of NAs' practice was increasingly restricted, and the presence of anesthetists when performing anesthesia significantly increased from 1979 to 2018 (p<0.001). Digital AIMS have impacted the vigilance to the patient during anesthesia, and led to that anesthetists work closer with the patient, while NAs are occupied with the digital AIMS. Professional developers' (n=60) and managers' (n=30) reported that a master's degree contribute to professional development and evidence-based practice. However, departments made little effort to facilitate students taking a degree.

Conclusion: The NA scope of practice seems to be challenged. Education, more available anesthetists, and introduction of new digital technology impact the NA role. These aspects may be transferable to other APN roles.

Significance: Studies show that patient complications and mortality rates are no different under the care of NAs compared with anesthesiologists, and that NAs are more accessible to vulnerable populations and rural areas. This contrasts the results presented here. Hence to retain a sustainable APN workforce in the future, these aspects need emphasis.



## 4.7 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### Creating an Advanced Practice Providers Fellowship Credentialing Framework

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<sup>1</sup>American Nurses Credentialing Center, Silver Spring, United States

Background: Advanced Practice Providers (Advanced Practice Nurses and Physician Associates) are increasing globally. APPs need time and support to be successful in their first professional roles. Role transition for new APPs is often challenging, with many experiencing the steep curve of acquiring competency in their role, imposter syndrome, and emotional turmoil during the first year. Fellowship programs have been utilized to help with workforce development. Creating a standardized approach to developing and implementing fellowship programs is essential. A credentialing agency in the United States created an accreditation process to hold APP fellowships to standards.

Objective:

1. Discuss using an accreditation framework for APP Fellowships
2. Discuss the impact of accreditation on APP fellowships
3. Describe how TTP standards can enhance and elevate APPS at local, national, and international levels

Methods: To date, over 20 programs in the United States have successfully earned this new credential.

Key learnings or results: Using a framework focusing on domains such as program leadership, organizational enculturation, development and design, practice-based learning, nursing professional development, and quality outcomes assists in creating and strengthening existing APP fellowships (ANCC, 2020).

Conclusion: APP fellowships across the globe have started to adopt these standards to construct robust residency and fellowship programs. As APP practice continues to expand across the globe, leaders need to utilize best practices in supporting APPs as they come into practice. APP fellowship models have proven to be successful models.

Significance: As APP fellowships continue to expand across the globe, it is vital that they have standards to use in the creation of these programs.



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### Negotiation of advanced practice in oncology pre-SACT assessment. A service evaluation

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<sup>1</sup>The University of Sheffield, Sheffield, United Kingdom, <sup>2</sup>Weston Park Cancer Centre, Sheffield,

Background: Increasing pressures in non-surgical oncology services, due to a rise in cancer prevalence and advances in cancer treatments, have been exacerbated by workforce shortages. Advanced practice roles have been introduced in oncology, as in many other healthcare settings, as one strategy to address this. In the UK a range of healthcare professionals can undertake advanced practice training, such as nurses and pharmacists.

Objectives: The aim of this project was to understand the factors important in the negotiation of multi-professional advanced practice in oncology pre-systemic anticancer therapy (SACT) assessment.

Methods: A service evaluation of advanced practice in oncology pre-SACT assessment was undertaken across a cancer network in the North of England in 2023. Data was collected through semi structured interviews with senior nurse managers (n=8), nurse advanced practitioners (n=7), pharmacy advanced practitioners (n=4), non-medical consultants (n=1), and medical consultants (n=2). Interviews were transcribed and analysed thematically. Reporting followed the SRQR guidance.

Results: Four overarching themes contribute to the negotiation of independent advanced practice in oncology pre-SACT assessment. These are; 'drivers for role development', 'support for advanced practice', 'contested boundaries' and 'a voice in planning'.

Conclusion: The negotiation of advanced practice in oncology is influenced by competing factors. Harnessing the drivers and investing in the support, in addition to addressing the identified challenges, are essential in the development and retention of these important members of the oncology workforce.

Significance: Factors in the negotiation of advanced practice identified in this study are important to stakeholders both locally and in wider health and social care. For employers, they reveal important challenges to role development and retention. For policy makers, they highlight areas requiring standardisation such as clear pathways for career

progression and role clarity. Identifying these factors will empower advanced practitioners in navigating the challenges they encounter.

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## **Introducing the Nurse Practitioner Role in the Lithuanian Workforce Through Cooperation and Regulation**

**Dr Jamesetta A Newland**<sup>1</sup>, Dr Aurelija BlazeVICIENE<sup>2</sup>

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Background: Cooperation between universities in different countries facilitates global understanding and advances nursing in multiple spheres - education, practice, research, and policy. Many countries have developed advanced nursing practice and nurse practitioner (NP) programs to increase access to care and improve health outcomes for the population.

Objectives: We will discuss how two schools of nursing partnered to bring advanced nursing practice to a country through the development of a graduate curriculum that introduced the role of the NP, facilitated research collaboration, and resulted in policy and regulatory changes to the nursing scope of practice in one country.

Approach: Faculty exchanges from each university and faculty training were supported through the country's research council, the United States' (US) Fulbright program, and the European Union's Erasmus+ faculty mobility program. The first cohort enrolled in 2015 and now there are more than 70 NP graduates.

Key learnings: Developing a new graduate program and NP role requires collaboration and commitment over time by both partners. Even though modeled after US programs, the program was developed within the context of the country's existing health and education systems. Support from all stakeholders was instrumental to success, including the Ministry of Health, from planning to implementation.

Conclusion: Nurses are eager to advance their profession and take on new roles with more responsibilities when the opportunity is provided. With thoughtful and purposeful planning and engagement, health systems can integrate NPs in their healthcare workforce.

Significance: The new advanced nursing practice role demonstrated how NPs were able to fill a gap to increase access and provide needed services to specific populations. Recognition of the NP role by the Ministry of Health and regulators contributed to the success of the NP program, preparation of qualified professionals, acceptance and utilization of NPs, and enactment of advanced practice privileges.

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## **Strategies for Successful University Promotion and Tenure as an Advanced Practice Nurse Faculty Member**

**Dr Susan Buchholz**<sup>1</sup>

<sup>1</sup>Michigan State University, East Lansing, Michigan, United States

Background: Advanced Practice Nurses (APNs) in faculty roles face unique challenges when seeking promotion and tenure at their university. Because APN faculty often hold multiple roles, including education, research, practice, and service activities, their work can be diffused across many areas, decreasing their time to engage in work central to promotion and tenure.

Objective: The purpose of this presentation is to review strategies that APN faculty can employ to be successful when seeking university promotion and tenure.

Approach: There are seven strategies APN faculty can begin (or continue) to use to meet indicators for promotion and tenure.

- Establish short-term and long-term goals as an APN faculty member.
- Determine and fully establish their central expertise areas linking teaching responsibilities, research and scholarship, practice, and service activities.
- Dedicate time every week to work toward the development of professional growth.
- Develop and work closely with teams that have similar healthcare interests.
- Establish relationships with mentors.
- Review the university-specific indicators that are used for promotion and tenure.
- Meet with the administration to discuss a promotion trajectory.

Key Learnings: APN faculty must establish what they hope to accomplish in their faculty career. If they are not already doing so, they need to protect their time, surround themselves with key people, and move forward enthusiastically with dedicated time to impactfully contribute to their fields of expertise.

Conclusion: Engaging in regular and intentional strategies will provide the structure needed for promotion and tenure success as an APN faculty member.

Significance: Because APN faculty members are engaged in education, research, practice, and service activities, they have a unique opportunity to provide important contributions across many healthcare sectors.



### 5.3 Investing in the APN Workforce

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#### Introduction of advanced practice nursing in the French healthcare system: a historical study

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##### Background:

- The universal health coverage introduced in France in 1946 focused mainly on curative hospital care. General practitioners working in private practice in contract with the social security provide primary care.
- Since the end of the 90s, the evolution of the characteristics of French population coupled with a shortage of physicians, urged decision makers to engage reforms.
- Advanced practice nursing (APN) was then identified as a strategy to maintain access to care.

##### Objectives:

- Describe the pathway followed by France to introduce APN
- Identify levers and obstacles of this project.

Methods: A historical method using both a diachronic and synchronic approaches was performed informed by documents analysis.

Results: Results will be presented both diachronically and synchronically: four phases have been identified; each one was replaced in the context of the period.

##### Conclusion:

- This urgent issue took more than 15 years to be addressed due to the reluctance of medical organizations even if the National Nurses Association-APN group was very instrumental in the project.
- Decisions ignored the PEPPA methodology, APN's role was not positioned as first line provider.
- APNs rapidly creates professional organizations to voice their positions.
- 5 years after the introduction of APNs in France, a law has been voted last May to position APNs as first line provider. But the implementation policies are still to be published.
- The Ministry of Health seems reluctant to make decisions to avoid the collapse of the healthcare system which would go against the position of medical organizations.
- Curiously, the population seems resigned and does not protest.

##### Significance

- Results stressed the importance of using the PEPPA model to shape the APN's role.
- Results shows how powerful are the medical lobby even if their position threatens the provision of healthcare to the population.



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#### Enhancing Advanced Practice Nursing through International Networking: A Case Study of the Society for Japanese Advanced Practice Nurses

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Background: Japan introduced certified nurse specialist (CNS) in 1995, and nurse practitioner (NP) in 2008, both leading to a surge in master's programs for aspiring Advanced Practice Nurses (APN). Despite this growth, challenges persist, such as the need for standardized competencies and an independent credentialing body. Graduates face difficulties integrating into the medical system and seek mentorship from abroad. The Society for Japanese APN, founded in 2018, aims to address these challenges by supporting and empowering Japanese APNs and fostering a global APN community.

Objective: To explore whether a cross-border micro-networking platform, uniting APNs from different regions and professions, can enhance APN development.

Approach: The society created a Japanese-language internet networking platform for ongoing communication, complemented by monthly online meetings. From 2018 to November 2023, four symposiums, three workshops, and two seminars were conducted.

Results: Four symposiums attracted total 534 participants. Twenty-three attended the workshops and seminars. Monthly newsletters reached approximately 300 recipients with an 75% open rate. The official social networking services garnered 462 followers. Positive feedback highlighted the platform's uniqueness in providing varied perspectives on APN issues, particularly in their native language.

Conclusion: The Society for Japanese Advanced Practice Nurses, though relatively new, has developed a multi-layered platform facilitating collaboration among CNS and NP, both in Japan and overseas. The society launched two new initiatives in the 2023 fiscal year, including research projects and an APN resource platform.

Significance - Impact and Reach: First the society has bridged geographical and professional gaps, fostering collaboration among APNs globally. Secondary the positive feedback indicates a significant impact on participants' understanding and development within the APN field. Lastly launching new initiatives in 2023 demonstrates the society's commitment to expanding its influence and resources, promising a lasting impact on the APN landscape in Japan and beyond.



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### **Greater Diversity in the Professional Doctorate Landscape: A Path to Maximize APN Impact**

Prof Judy Honig<sup>1</sup>, **Prof Jan Jukema**<sup>2</sup>, Myrna Pelgrum-Keurhorst<sup>2</sup>

<sup>1</sup>Columbia University School of Nursing, New York, United States, <sup>2</sup>Saxion University of Applied Sciences, School of Health, research group Smart Health, Deventer, Netherlands

Objectives: Understand the potential of the PD for advancing practice-oriented nursing education  
Deepen the debate on the nature and impact of different types of PD for effective, high-quality care.

Background: In 2023, the first cohort of Master's prepared professionals began a practice-oriented doctoral program in the field of Health and Well-being. This program, part of a national pilot led by a consortium of Universities of Applied Sciences (UAS), aims to develop and implement Professional Doctorate (PD) programs for seven different clusters, including Health & Well-being. The UAS-PD program aligns with the doctorate level (EQF 8) in the European Higher Education Area Framework and the European Qualifications Framework for lifelong learning (EQF). The EQF accommodates level eight programs emphasizing contributions to work, innovation, and professional practice. The UAS-PD program can be described as 'learning to make interventions in complex professional practices' and focuses on innovative approaches at the intersection of health and well-being. It emphasizes preventive, multidisciplinary strategies based on specific needs of local communities, with the goal of creating a healthier and more inclusive society. The PD supports candidates in developing their roles as researchers, change agents, innovators, and professionals.

Approach/Results/Impact: In the Netherlands, 500 nurses are educated annually to become NPs who practice independently. The PD offers an exciting and transformative educational opportunity for NPs. NPs with a PD are ideally positioned to impact practice, implement positive and sustained change, and exert influence on policy, in short, to be leaders in moving healthcare towards more efficiency and equity. The PD serves a model of doctoral education for practicing nurses that can be adopted and adapted across Europe and beyond.

We will discuss the role of nursing organizations as effective catalysts for the NP to pursue the PD and make important impact on the health in the Netherlands and beyond.



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### **New and emerging advanced practice nursing roles**

**Dr Kimone Reid**<sup>1</sup>

<sup>1</sup>Cleveland Clinic Martin Health, United States

Background:

Advanced practice nurses (APNs) are well positioned to address many global health imperatives including rising noncommunicable diseases and healthcare worker shortage, while simultaneously show the value of APNs and improve the public image of nursing. Although the APN role has had growth in numbers and scope of practice in the United States and other countries, the APN role is still a largely untapped nursing role in many countries.

Objectives:

1. Identify new and emerging APN roles
2. Discuss barriers to role expansion
3. Discuss strategies to address identified barriers
4. Identify ways to develop and support these roles
5. Demonstrate the value of these APN roles

Methods or Approach: A discussion on emerging APN roles will be held with emphasis placed on how these roles are being utilized to increase access to care within certain specialties, improve the quality of care and to address medical conditions with a high morbidity rate. Focus will be placed on roles that could possibly be developed and utilized in resource limited countries. Barriers to developing these roles and strategies to overcome the identified barriers are discussed.

Key Learning: Four emerging roles - hospitalist nurse practitioner, diabetes clinical nurse specialist, heart failure nurse practitioner and hospital at home nurse practitioner will be presented, with real world examples. Issues and solutions around regulation, education, APN image/ awareness and advocacy will be provided.

Conclusion: Diversifying the role of APNs is pivotal to meeting population needs globally. By showcasing the potential of APNs, the profession may garner increased economic, educational and workforce investments.

Significance: It is essential to demonstrate the capability and adaptability of APNs to meet societal needs. Demonstrating the value of APNs to reducing cost and improving care in acute care and community settings helps with buy-in as we overcome barriers to role expansion.





## 5.4 Multidisciplinary: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing & Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

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### The Use of Simulation Based Learning to prepare AG-ACNP students for Ethical Medical Decision-Making during Crisis Standards of Care

**Dr Diane Fuller Switzer<sup>1</sup>**

<sup>1</sup>Seattle University, Seattle, United States

Ethical dilemmas exist with crisis standards of care (CSC). Triage algorithms exist, however implicit biases cause deviation and moral distress. A knowledge gap exists in the AG-ACNP curriculum preparing students for CSC. AG-ACNP students need preparation to make fair and equitable decisions with CSC, recognize implicit bias, and moral distress that occurs with such decisions.

Objectives:

1. Participants will describe the variabilities with triage AI algorithms and how such variabilities may be related to the implicit biases of the creators of the algorithms.
2. Participants will be able to describe how ethical decision-making simulations prepare students for CSC decision-making and mitigate the potential for bias and moral distress in nurse practitioner education.
3. Participants will be able to describe the moral distress among CSC decision-makers with AI triage algorithms and communicating prioritization of care to family members.
4. Participants will be able to describe the use of SBL to explore the experience of healthcare decision making within a framework of CSC.
5. Participants will be able to describe the ethical dilemmas and moral distress that occurs among decision-makers when faced with resource allocation crises during pandemics.

Methods: This knowledge gap was addressed through a CSC SBL that was beta tested as a tabletop and revised for "live" iterations adhering to International Nursing Association of Clinical Simulation and Learning (INASCL) standards with 2 cohorts of AG-ACNP students.

Results/Conclusions: Debriefing sessions revealed that students deviated from the AI triage algorithm, experienced implicit bias, moral distress, and utilized clinical judgement and experience rather than prognostication tools to determine prioritization of care according to the triage AI algorithm.

Significance: A CSC SBL addresses a critical knowledge gap in AG-ACNP education that meets the AG-ACNP competencies addressing ethics, diversity, equality, and inclusiveness during disasters, and supports the inclusion of CSC content into AG-ACNP curriculums.



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### Establishing an Australian Nurse Practitioner Research Agenda: A National Consensus

**Dr Natasha Jennings<sup>1,3</sup>**, Prof Kathleen Tori<sup>1,2</sup>, Prof Lisa McKenna<sup>2</sup>, Corinne Dunningham<sup>3</sup>

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<sup>3</sup>Alfred Health, Melbourne, Australia

Background: Despite gaining momentum in terms of numbers and clinical acceptance, contemporary literature suggests that Nurse Practitioner (NP) research in Australia has been somewhat sporadic and lacks a unified direction to support sustainable growth and full integration of the NP role. A targeted research agenda for Australian NPs is essential for evaluating NP-led care in diverse settings and underserved or rural areas. Furthermore, it would enable exploration of the cost-effectiveness of care provided by the NPs, NP roles' effectiveness in healthcare provision for culturally diverse populations, and the integration of NPs into multidisciplinary healthcare teams.

Objectives: This study aimed to establish the research priorities for Australian NPs and to develop a robust research agenda.

Methods: Using the Delphi technique, a consensus-based methodology, Australian NPs participated in a two-phase purposely created survey, delivered via social media platforms. An initial exploratory survey identified significant themes perceived as important to them professionally and in their practice. Participant responses were ranked, and consolidated research themes were grouped. In the second phase, participants prioritised these research themes to collaboratively develop a comprehensive research agenda.

Results: Within the study, prioritised research directions were revealed highlighting the breadth of complexity of challenges for Australian NPs. The findings lay the foundation for a consensus-based research agenda that can inform clinical, educational, and leadership aspects of NP care and have applicability both nationally and internationally.

Conclusion: Research is crucial for addressing contemporary challenges in delivering safe and high-quality healthcare. The research agenda establishes an evidence base for Australian NP research priorities. These priorities are poised to play a pivotal role in shaping policies, fostering efficient integration of NPs into the Australian healthcare system, and advancing research capacity.

Significance: Strategically the research agenda will have far-reaching impact, ultimately leading to improved patient outcomes and heightened professional satisfaction among Australian NPs.



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### **Assessing and enhancing APN regulation and governance in Kenya and Ghana**

Dr Natasha North<sup>1</sup>, **Dr Edna Tallam**<sup>2</sup>, Ms Anne Mukuna<sup>2</sup>, Ms Philomina Woolley<sup>3</sup>, Eugene Ayub<sup>2</sup>  
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Background: Kenya's Primary Healthcare Strategy envisages a shift towards nurse-led service provision, highlighting the roles of advanced practice nurses (APNs). This change, led by the Nursing Council of Kenya (NCK), involves establishing the scope of practice, training, and employment frameworks for APNs, alongside stakeholder consultation. The Nursing and Midwifery Council of Ghana (NMC-G) has already led the introduction of APN roles in Ghana.

Objectives:

1. Facilitate the introduction of APN roles in Kenya.
2. Prevent common global challenges in implementing APN roles, like role confusion and lack of stakeholder support.
3. Promote bidirectional learning between the Kenyan and Ghanaian health systems.

Approach: As part of a project funded by the UK Overseas Development Agency, NCK and NMC-G are assessing and developing APN regulation and governance, enabling stakeholders to identify strengths and improvement areas. The team are assessing capacity in the domains of education, clinical services, regulation, and human resources for health (HRH), through a structured process designed to build stakeholder collaboration.

Key Learnings: The presentation will share insights from this project, especially regarding inter-professional and multi-agency collaboration. Key findings from the assessment will be presented, benchmarking current system capacity against the necessary conditions for sustainable APN implementation, and highlighting actions needed to advance to the next level of process maturity.

Conclusion: Stakeholder collaboration, including educational institutions, regulatory bodies, and healthcare facilities, is fostering a comprehensive framework for APN role implementation.

Significance: Aligned with Kenya's Nursing and Midwifery Strategic Plan, envisioning the sustainable integration of APNs into the health system as part of the nursing workforce strategy. This project offers valuable insights about initiating APN roles in Africa and elsewhere.



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### **Differentiating specialist community advanced practice nursing roles to extend universal health coverage in the United Kingdom**

Prof John Unsworth<sup>1</sup>, **Dr Crystal Oldman**<sup>1</sup>, **Dr Agnes Fanning**<sup>1</sup>  
<sup>1</sup>The Queen's Nursing Institute UK, United Kingdom

Background: Despite the United Kingdom having an exceptionally well developed system of primary health care some patient populations continue to experience problems with accessing healthcare. Amongst these groups are people who are unable to leave their homes because of age, infirmity or illness, individuals with mental health problems or learning disabilities and those people who are detained in Prison or who find themselves homeless. Problems with access to services widen health inequalities, reduce opportunities to manage long-term conditions and extend life expectancy.

Objective: To differentiate specialist advanced practice nursing roles setting clear standard for educational programmes in order to provide services to individuals irrespective of whether they can access standard primary health care or not.

Methods: We established a Standards Board and convened 9 Expert Standard Reference Groups (SRG) drawing expertise from clinical practice, higher education, professional bodies and the four United Kingdom health departments. Each SRG developed standards and refined them until a consensus was reached. These were then presented to the UK standards board for approval.

Key learning: Despite differences between the four UK countries we were able to reach consensus through successive rounds of discussion and negotiation. High level buy in from the health departments was crucial to the success of this work. In addition, ensuring that the standards reference groups were inclusive of all organisations working in these areas was essential to success.

Conclusion: A total of 9 sets of specialist standards were developed mirroring the competencies for advanced nursing practice. These are now used by UK Universities to develop programmes.

Significance: The standards have updated five existing specialist areas and for the first time named another 4 areas which include Adult Social Care Nursing, Prison and Custody Healthcare, Homeless and Inclusion Health and Palliative and End of Life Care.



## 5.5 The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing

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### **Urgent Care Provision for Blantyre Life Intermediate Care Facility: A Collaborative Approach by NHS Lanarkshire's Primary Care Advanced Nurse Practitioner Team**

**Lindsay Simpson**<sup>1</sup>, Gordon Carlyle<sup>1</sup>, Amanda Barry<sup>1</sup>, Marjie McBride, Lorraine Smith<sup>1</sup>

<sup>1</sup>NHS Lanarkshire, United Kingdom

Background: Blantyre Life Intermediate Care (BLIC) is an innovative, state-of-the-art facility assisting individuals over the age of 50 who no longer require hospital care but require a period of rehabilitation following admission. This facility is operated by South Lanarkshire Health and Social Care Partnership (SLHSCP) and run by Care Staff.

The ANPPCT provides Urgent Care (UC) provision from 0900 to 1700 hours Monday to Friday. A local General Practice (GP) holds Registered Medical Officer status providing ongoing care after assessment by the ANPPCT.

Objectives:

- To deliver safe, sustainable UC to BLIC through collaborative working between the ANPPCT and GP.
- Ensure excellent communication between services and reduce demand on secondary care.
- To decrease dependence on long-term nursing and residential care.

Method / Approach: Data was collected by recording each episode of contact with ANPPCT and outcomes recorded.

Key Learning / Results: Since opening BLIC, ANPPCT has supported 92 individuals to return home or to suitable supportive accommodation. There has been a total of 54 individual contacts to 38 people by the ANPPCT, over a 40-week period from 13th March-15th December 2023.

Patients presented with a wide variety of conditions and following assessment 7 of required hospital admission, 25 required prescriptions, and the others required referral to another primary care service, referrals for clinical investigations or discharged with no interventions.

Conclusion: The ANPPCT have provided a collaborative approach to safe, sustainable UC to people residing in BLIC and helped support their safe journey home.

Significance (impact and reach): This transformational, dynamic, collaborative approach has promoted safe person-centred care, while improving the overall patient journey. This approach has also showcased the effective use of advanced practice. Without the ANPPCT, this service would not have been successful, thus significantly impacting the demand on secondary and social care.



1323

### **Implementing an Advanced Practice Nurse centred multidisciplinary team approach in an Ambulatory Emergency Care Unit (AECU) in Singapore**

**Cassandra Chen**<sup>1</sup>, Dr Thofique Adamjee<sup>1</sup>, Soon Pang Goh<sup>1</sup>, Sharon Fun<sup>1</sup>

<sup>1</sup>Khoo Teck Puat Hospital, Singapore, Singapore

Emergency Department (ED) overcrowding is a pressing issue in Singapore, and long wait times for hospital beds are associated with poor patient experiences and outcomes. Since 2019, Khoo Teck Puat Hospital established Singapore's first Ambulatory Emergency Care (AEC) service aimed at reducing short-stay General Medicine admissions of up to 3 days to discharge within a day. The model of care aims to discharge the patient within a day, with a very early outpatient review.

This is achieved through a multidisciplinary approach, with an advanced practice nurse (APN) playing a pivotal role in the service. In addition to reviewing medical conditions with the medical team, the APN actively facilitates early allied health reviews, expedites radiology scans, conducts patient education, and ensures timely outpatient clinic reviews, all to guarantee patients receive prompt and comprehensive care.

Our findings reveal nearly a 50% reduction in total costs for patients, accompanied by an average decrease in length of stay (LOS) by 1.2 days. Furthermore, based on 1000 successful AEC cases with a pre-AEC average length of stay (LOS) of 1.98 days, we observed a remarkable total of 1978 inpatient bed-days saved for the organization. Additionally, there is no increase in the 30-day readmission rate, and no patient mortality. In terms of patient care, satisfaction levels are notably high, as patients regain control of their health and swiftly resume normal activities with minimal disruption.

In conclusion, adopting a multidisciplinary team approach with a shared goal and mindset proves instrumental in reducing hospital admissions, generating cost savings for patients and increasing patient's satisfaction.



1130

### **Dynamics of nurse practitioner-physician clinical practice models in long-term care homes: a qualitative study**

**Dr Shirin vellani**<sup>1,2</sup>, Ms Alexandra Krassikova<sup>1</sup>, Dr Lynn Haslam-Larmer<sup>1</sup>, Dr Astrid Escrig Pinol<sup>1,3</sup>, Dr Katherine McGilton<sup>1,2</sup>

<sup>1</sup>KITE Research Institute: Toronto Rehabilitation Institute-UHN - Toronto, ON, Toronto, Canada, <sup>2</sup>Lawrence S Bloomberg Faculty of Nursing, University of Toronto, Toronto, Canada, <sup>3</sup>Social Determinants and Health Education Research Group (SDHEd-IMIM), Barcelona, Spain

Background: Contributions from the nurse practitioner (NP) and physician's skillsets are essential in long-term care (LTC) homes to ensure residents have timely access to acute, episodic, and palliative care to avoid adverse events, including unnecessary hospital transfers. As the number of NP-physician practice models in LTC grows, there is a need to better understand the strategies and behaviours that contribute to an effective and efficient NP-physician collaborative practice.

Objectives:

1. Examine how NPs and physicians envision working together in collaborative practice.
2. Explore attributes of the ideal NP-physician collaborative practice model in LTC.

Methods: We used a qualitative case study design involving semi-structured interviews. Inductive thematic analysis was used to identify patterns emerging from data.

Findings: Fourteen NPs and 8 physicians participated and represented Canada, the United States, and the Netherlands. Participants endorsed the importance of NPs in the LTC environment for timely access to address residents' medical needs, supporting LTC staff through education, and leading quality improvement initiatives. Two divergent pictures of NP-physician clinical practice model emerged. Successful implementation of a collaborative practice model was characterized by a mutual commitment to establishing a relationship of trust and respect, clearly defined roles and responsibilities, bilateral communication, and sharing the same philosophy of care. Failed implementation of the model was demonstrated by conflicts caused by lack of role clarity, fragmented communication, and structural constraints.

Conclusion: Successful implementation of an NP-physician collaborative practice model requires a multipronged strategy involving LTC leadership, NPs, and physicians.

Impact and Reach: Key to ensuring resident-centred care in LTC is interdisciplinary care that involves NP-physician collaborative practice. The role of LTC leaders is critical in planning for sustained implementation and ongoing evaluation of the collaborative practice model. Findings of this study can inform development of such models in LTC globally.



741

### **Community Health Workers: The Vital Link Between APN and Patient Care**

**Dr Wendy Thal**<sup>1</sup>, **Dr Tara Hilliard**<sup>1</sup>, **Dr Linda McMurry**<sup>1</sup>

<sup>1</sup>Texas Tech University Health Sciences Center, United States

Background: Advanced practice nurses (APN) provide primary (health) care services to diverse populations around the world. The ability to network with communities at the local level is key to facilitate better access and improved culturally competent health care. Community health workers (CHW) are considered trusted members of the community in which they serve and can provide the vital link between health care services and community members. CHW can be found worldwide and are recognized as being crucial members of inter-professional healthcare teams. The role is foundational in addressing social determinants of health in medically underserved regions globally. Training of CHW varies from formal competency-based education models in some countries; to a more informal training at the local level developed to meet the needs of a community's unique patient population.

Objective: This presentation will describe collaborations between APN and CHW in a US based FQHC, as well as experiences with APN and APN students with CHW in Nicaragua and the Philippines during one university's global health immersion experiences.

Approach: CHW training program at the FQHC was developed utilizing a Transformation for Health framework to assist communities to transcend conditions that promote health disparities. APNs in the practice developed training modules for the predominant chronic diseases-asthma, diabetes, hypertension, and obesity. A similar concept was used during global health immersions in both Nicaragua and the Philippines. Based on local medical providers and their community

needs assessment, annual educational conferences were instituted to train CHW in basic health literacy and knowledge of common health conditions.

Conclusion: An interdisciplinary team consisting of APN and others assisted in development and presentation of topics engaging CHW in an innovative and interactive learning experience.

Significance: Utilizing this model of training, CHW can provide the vital link between advanced practice providers and a healthier, more equitable world.



## 5.6 Advancements in Digital Health and Technology for Enhanced APN Practice

1641

### Leveraging information technology to improve equity in nursing education

**Dr Tamika Rhodes**<sup>1,2</sup>

<sup>1</sup>University of Oklahoma Fran & Earl Ziegler College of Nursing, Oklahoma City, United States, <sup>2</sup>Oklahoma Children's Hospital, Oklahoma City, United States

**Objectives:** To elucidate ways existing software can be leveraged to optimize aspects of nursing education and advanced practice in neonatal intensive care **Methods:** A neonatal clinical nurse specialist (CNS) serving a local college of nursing and Level IV 115-bed neonatal intensive care unit (NICU), innovated several methods of optimizing common information technology (IT) resources, including Microsoft Office and Canva, to smooth processes such as interprofessional collaboration around event reporting and discharge of the complex neonate, as well as creation of educational images featuring underrepresented minorities/ethnic groups. **Key learnings:** The use of existing software mitigates learning curves associated with new or emerging IT, while supporting visualization of IT's expanding role in elevating the quality of care and education delivery within the neonatal ecosystem, undergraduate and graduate nursing education. For example, tools like The Digital Discharge Binder offered parents of complex neonates a ready reference that can be easily carried from care setting to care setting. Early parent report describes satisfaction with having a digital reference for appointments, medical equipment manuals and emergency contact information. **Conclusion:** As emerging technologies become more prevalent, nursing education is reframed, and the needs of complex care neonates grow, the CNS can bridge new and existing IT resources across all three spheres of influence to equitably optimize health and wellbeing. **Significance:** The ability of the CNS to deploy IT across academic and clinical practice promotes advanced nursing practice, the role of CNS, and creation and dissemination of diverse patient-centered tools. The CNS can play an integral role in developing evidence-based guidelines for this vital work.

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### Application of an Informational Case Management Model in Advanced Nursing Practice on Geriatric Hip Fractures

**Yangyang Yu, Caihong Li, Yinyin Lv**

<sup>1</sup>Beijing Tsinghua Changgung Hospital, Beijing, China

**Background:** Geriatric hip fractures is a common osteoporosis-related fractures, and at this stage it's mostly treated surgically. As fractures are associated with limited mobility and elderly population has functional aging problems, elderly patients with hip fractures are often inefficiently managed due to information exchange barriers, low adherence, ineffective exercise regimens.

**Objectives:** In this study, we performed advanced nursing practice for elderly hip fracture patients with the help of an information-based case management platform to explore the effect of this application in elderly patients with hip fractures within 6 months after surgery.

**Methods or Approach:** Informational case management was implemented in 42 elderly hip fracture patients (study group), including information management, individualized program development, use of Internet medical resources, digital quality management of diseases and intelligent services. While the traditional management mode was implemented in another 40 elderly hip fracture patients (the control group).

**Key learnings or results:** The timely follow-up rate (41.5%), DE Morton mobility index (73.3±4.8 points), Harris Hip score (92.7±5.7 points) and satisfaction (98.9±0.5 points) in the study group were higher than those (36.1%, 67.8±6.4 points, 90.1±6.9 points, 97.5±0.7 points) in the control group within 6 months after surgery,  $P < 0.05$ , which was statistically significant.

**Conclusion:** The informational case management model can improve the prognosis of elderly hip fracture patients, increase the timely follow-up rate and patient satisfaction level, and has guiding significance for improving the quality of clinical patient services and patients' postoperative recovery.

**Significance (Impact and Reach):** Provide an effective means for digitizing information for the clinical management of geriatric hip fractures.

## **Evaluation of an artificial intelligence clinical decision-making tool in Nurse Practitioner education: A cross sectional study**

**Dr Nilufeur McKay<sup>1</sup>**, Adam McCavery, Peter Palamara, Prof Karen Strickland

<sup>1</sup>Edith Cowan University, Joondalup, Australia

**Background:** Artificial Intelligence (AI) is rapidly transforming healthcare and is poised to play a crucial role in Nurse Practitioner (NP) clinical practice. The 2023 Clinician of the Future report surveyed 2,838 clinicians across 111 countries, revealed 70% of clinicians felt that digital health technologies are key to future healthcare transformation. This report underscores the urgency for embedding digital health technology in medical and nursing education to align with the swift pace of technological advancements (Elsevier, 2023).

At Edith Cowan University we have incorporated an AI differential diagnosis software called Isabel Healthcare to support NP students' clinical decision-making skills. This innovative tool requires students to input abnormal physical exam findings and diagnostic results, subsequently offering a range of differential diagnoses linked to clinical resources like UpToDate, Australian Therapeutic Guidelines, and Medline.

**Objective:** Our study is centered on evaluating NP students' perceptions of both the training and utility of the AI clinical differential diagnosis tool in enhancing their clinical decision-making skills.

**Methods:** A cross sectional mixed methods approach to assess the NP students' engagement and perceptions of the AI differential diagnosis tool. The evaluation will be conducted using a learning experience survey alongside a validated technology usability survey.

**Conclusion:** The use of AI in NP education has the potential to enhance the educational experience by providing interactive learning opportunities, improving digital literacy, and facilitating the development of clinical decision-making skills.

**Key Learning/ Results:** The study will highlight students' preferences in instructional design and their inclination to integrate AI tools in clinical practice.

**Significance:** Introducing AI-based clinical decision-making tools into the NP curriculum is a strategic move. It not only allows educators to weave technology-enhanced learning into their teaching but also equips students with essential skills in digital literacy and clinical decision-making, preparing them for the future landscape of healthcare.



## **Innovations in primary care delivery: Regionally based nurse practitioners providing consultation to primary care nurses in remote Canadian communities**

**Dr Jennifer Knopp-Sihota<sup>1</sup>**

<sup>1</sup>Athabasca University, Edmonton, Canada

**Background:** In remote Canadian communities, most primary care is delivered by registered nurses (RNs) with additional training in health assessment and managing urgent conditions. Before provincial legislative changes, RNs independently followed clinical guidelines and received telephone support from on-call physicians in local referral hospitals. Since this change, RNs must consult a physician or nurse practitioner (NP) before diagnosing and implementing all clinical treatments.

**Objectives:** We sought to implement an innovative NP on-call telehealth system to improve continuity and timely access to high-quality essential primary care.

**Methods or Approach:** This paper describes the setup, processes and initial evaluation of providing remote NP telehealth consultation.

**Key learnings or results:** Ideally, all patients would have direct access to a physician or NP for their primary care needs. Despite active recruitment, there remains a situation of chronic minimal staffing whereby many communities have no regular access to a primary care provider. We describe a sustainable system providing remote consultation, including using various mobile technologies, the lessons learned, and the unexpected benefits of the NP consultation model.

**Conclusion:** RNs continue to work within their scope of practice, providing community health and primary care services and consulting the on-call NP when their assessment identifies the need for medical diagnosis and intervention. Overall,



the evaluation results are positive; all respondents agreed that the program was of value. A more robust evaluation, including measuring clinical outcomes and patient satisfaction, is underway.

Significance (Impact and Reach): Attrition of the nursing workforce from retirement, movement of individuals to more central positions, and nurses seeking less remote employment have led to staffing gaps in remote communities. We describe an innovative care delivery system that other remote or rural communities may adopt.



## 5.7 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

1557

### Conceptualisation of an advanced nursing practice intervention in health promotion for people with intellectual disabilities

**Dr Stefanie Schniering**<sup>1</sup>, Stephan Nadolny<sup>2,4</sup>, Birgit Pohler<sup>3</sup>, **Kerstin Gemes**<sup>3</sup>, Änne-Dörte Latteck<sup>2</sup>, Miriam Tariba Richter<sup>1</sup>, **Claudia Wilhelm**<sup>1</sup>

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Background  
Advanced nurse practitioners (ANPs) assume a key role in health promotion and reducing health inequalities, particularly for underserved populations such as people with intellectual disabilities (PWID). When designing and implementing new interventions, it must be ensured that these interventions are well conceptualised.

Objectives: We aimed to develop and adapt a conceptual frame (CF), framing the processes, theories and implementation of a health promotion intervention for PWID by ANPs.

Approach: The CF development was based on the six-step intervention mapping process ranging from the development of a logic model of the needs to evaluation planning. The process was realized in recurring team meetings and intermittent work phases. The team consisted mainly of nurses with different specialisations (at least a Master's degree), as well as social education professionals.

Results: The CF applies relevant theories and frameworks in order to make them applicable for nursing health promotion interventions for PWID. As the field of health promotion for PWID is a relatively new task for ANPs in Germany, the role development of ANPs is a necessary component of this CF. The demands on the competences of ANPs are directed towards the interaction with clients and the development of outpatient service structures in the sense of professional leadership. This is framed by models of professional relationships, attitudes and theories concerning the implementation of interventions e.g. motivational interviewing, social-space orientation, health promotion model, transtheoretical model of health behavior change. Outcomes include, among other things, improved health status, resilience and health-related quality of life.

Conclusion: The CF was important for understanding the main objectives, components, processes and key influencing factors of the intervention and implementation process.

Significance: The CF already incorporates the lessons learned from the intervention delivery. It can be a starting point for further development of health promotion interventions for PWID in nursing.



1083

### Advanced nursing and midwifery practice: a vehicle towards achieving universal health coverage in Kenya

**Anne Mukuna**<sup>1</sup>, **Dickson Kimutai T.**<sup>1</sup>

<sup>1</sup>Nursing Council of Kenya, Nairobi, Kenya

Background: The aspiration of the government is that all Kenyans will secure access to essential quality health services, without suffering financial hardship. Further, the care is envisioned to be people centered, an approach that gives priority to patient and community needs rather than disease, and provides for equitable care to patients. This resonates well with the training and competencies of APN, as outlined in the training guideline and scope of practice, and which will lead not only to quality care, but also improved patient care outcomes. The responsibilities of Advanced Practice Nurses are continually evolving, and mirror the ever-changing healthcare environment. Kenya, just as many other parts of the world continues to experience a shortage of human resource for health, and this calls for health professionals to fully and maximumly utilize their potential in provision of health care. Nurses are a critical component of every health system, and enhancing their competencies will lead to realization of UHC by improving access to quality health care. The Nursing Council of Kenya in 2022 developed regulatory tools towards APN. Subsequently, two (2) training institutions commencing the APN training programs.

Objective: To advance awareness of APN practice in Kenya

Methods: Engagement of stakeholders to include; County Chief Nurses and County Chief Executive Officers, and training institutions.

Key learning/Results: Appreciation of the unique position that APNs hold, and the potential to shape the health system for improved health care outcomes in the country and beyond.

Conclusion: Stakeholders engagement has proved important towards understanding of the capacity and competency of the APN, with a view of identification of their space in the health system.

Significance: Wetting the ground for APN practice, that will lead to shaping of policy and guidelines on the practice.



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## **Building a Healthier Tomorrow: The United Nations SURGhub Provides Free High Quality Education To Increase Access and Expertise of The Surgical Team**

### **Dr Jackie Rowles<sup>1</sup>**

<sup>1</sup>International Federation of Nurse Anesthetists, Sursee, Switzerland, <sup>2</sup>Texas Christian University, Fort Worth, Texas

In 2023, the United Nations implemented a project with the goal of increasing the surgical workforce and its competencies by providing free online, quality education for all members of the Surgical Team. ICN responded to an invite from the UN to nominate a nurse anesthetist for consideration in committee selection. The nominee was asked to serve on the content committee, highlighting recognition of the nurse anesthetist global role and the need for inclusion within this project. This session explores development of the UN Global Surgery Learning Hub, the make-up and responsibilities of its working committees, current courses, and highlights opportunities for all APNs within the surgical team to influence global learning and assist in the expansion of surgical systems in low resource settings.

While successful impact of the initiative will take time to determine, project teams are already measuring learners use and preference of courses, including the numbers of successful completions by learner discipline. Success will truly be measured by future increases in access to high quality care throughout the entire peri-operative period. Any provider in any country may access the SURGhub, however this initiative will most benefit those providers in low resource settings who lack access to high quality educational materials specific to their chosen area of practice.

Attention to surgery as an essential part of Universal Healthcare is a relatively recent phenomenon. Reportedly, up to 1/3 of the global burden of disease can be cured through surgical intervention (Meara et al, 2015). Research has demonstrated access alone is not the answer. Access to poor quality of care is now a known factor in morbidity and mortality (Kruk et al, 2018). This presentation seeks to inform the audience about the UN project and recruit participants for both learning and assisting with authoring educational courses.



1537

## **The nurse practitioner in the spotlight**

### **Nathalie Van Elck<sup>1</sup>**

<sup>1</sup>Dutch Association of Nurse Practitioners, Utrecht, Nederland

Background: The profession of a nurse practitioner has existed for 25 years in the Netherlands. Many citizens and even some healthcare providers are still insufficiently aware of what a nurse practitioner is and what her/his competencies are.

Objectives: We would like to provide accessible information about the profession of the nurse practitioner. The aim is to educate about the scope practice of the nurse practitioner and its value to the Dutch healthcare.

Method: Four nurse practitioners have been followed and filmed during their work. In addition, the Dutch Minister of Health, patients and doctors were interviewed. These different perspectives point out what meaningful difference a nurse practitioner can make.

Key learnings:

- A fly on the wall film that captures the essence of the value of a nurse practitioner.
- Holistic view on the nurse practitioner given by different professionals and patients.

Conclusion: From the premiere until today, tens of thousands of people have watched the film in the Netherlands and abroad. By the reactions received we have noticed it contributes to more knowledge about the added value of the nurse practitioner in Dutch health care.

Significance: The film has won awards at several film festivals. It was also highly praised by medical professionals as well as the public. It leads to more awareness and interest in the profession of the nurse practitioner.



## 6.1 Clinical Workshop

1193

### An Exploration into a Cultural Humility Framework to Optimize Cross-Cultural Partnerships

**Dr. Rebecca Silvers**<sup>1</sup>

<sup>1</sup>University of California San Francisco, San Francisco, United States

Background: Global collaborations are used to support advanced practice nursing development through shared learning and partnership. Optimizing the equity within these partnerships has been shown to increase their effectiveness and impact. Thus, partners must engage in preparation beyond cultural competency, a static concept that suggests learning about our partners includes a finite list of things and fails to recognize the bias and power imbalances that impact the nature of their partnerships. A cultural humility framework can be applied to optimize partnership equity through its three principles: lifelong learning and critical self-reflection, recognizing and challenging power imbalances, and urging institutional accountability.

Importance: As individuals and institutions engage in cross-cultural collaborations, a framework of cultural humility can be used to promote equity within the APN partnerships. As a relatively new concept in global health sciences, it is essential to provide opportunities for APNs to gain the knowledge and skills necessary to apply the cultural humility framework to their collaborative partnerships.

Purpose of workshop: The purpose of the workshop is to provide an introduction to the concept of cultural humility for APNs. Participants will have an opportunity to explore the cultural humility framework through didactic lectures, self-reflection, and a large group case discussion.

Learning objectives:

1. Define cultural humility and list its three core principles.
2. Name at least two types of bias and describe their impact on partnerships.
3. Identify three tools for effective communication.
4. Begin the process of critical-self-reflection:
  - a. Reflect on past partnerships and how the application of a cultural humility framework may alter the relationship.

Workshop Schedule Format with Topic, Time, Learning Activity, Target Learning Objective:

- Ice breaker and introductions, 10 mins
- Introduction to Cultural Humility, 15 mins, Didactic lecture with slides and handouts, Objectives 1, 2, 3
- Case discussion presentation, 10 mins, Self-reflection Worksheet, Objective 4
- Larger group discussion, 20 mins, Review worksheet, Group sharing, Application of all objectives
- Course wrap-up, 5 mins

Outline what knowledge/skills/tangible resources participants can expect to take away from the workshop: handouts with didactic learning, worksheets, and notes from group discussion.

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## 6.2 Symposium: Understanding and Advancing Credentialing and Certification: Strategies for Developing the Speciality APN Workforce

NPAPN24011

Convenor: TBC

Purpose: To identify and examine critical issues and solutions for strengthening the credentialing of Advanced Practice Nurses (APNs) in specialty practice around the world.

Objectives:

1. To improve understanding of credentialing for APNs, with a focus on certification.
2. To increase awareness of the international evidence regarding the advantages/disadvantages, and outcomes of different APN specialty certification models.
3. To increase understanding of the barriers, enablers, and priority solutions to implement APN specialty certification.
4. To empower APNs and nurse leaders to engage in developing and implementing country-level and international solutions for optimising the certification of APNs in specialty practice.

Rationale: Issues related to the credentialing of APNs have far-reaching implications for healthcare coverage, the safety and quality of nursing care, and workforce sustainability. Improving certification, as one type of credential, is identified internationally as a policy priority for strengthening the development, recruitment, and retention of specialty APNs. This symposium will provide a platform for sharing international evidence and examples, generating solutions, and informing decisions about the implementation of specialty certification for APNs.

Format: Three 12-minute presentations will examine issues and provide different examples regarding the credentialing and certification of specialty APNs from international and country-level perspectives. A facilitated discussion will engage participants to examine, discuss, and generate practical solutions for improving the specialty certification of APNs. Ways that APNs can provide leadership to advocate for and implement these solutions will be identified. The 20-minute discussion led by the Chair of the ICN NP/APN Network will address these questions:

1. What are barriers and challenges to specialty certification in your country?
2. What are the solutions for introducing and improving the specialty certification of APNs?
3. How can APNs be an active part of the solutions?

Proposed solutions will be documented on flipchart paper and then ranked to priorities using Mentimeter.

Summary: This symposium will delve into credentialing; the benefits and challenges of APN specialty certification. Through increased understanding of specialty certification, participants will be empowered to inform and lead the implementation of evidence-based strategies in their country to advance the field of specialty advanced practice nursing on a global scale.

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### **Credentialing and the certification for Specialty Advanced Practice Nurses (APNs) – Current State of the International Evidence**

**Dr Denise Bryant-Lukosius**, Prof Alba DiCenso  
Practice Nursing, School of Nursing, McMaster University

Background: Despite the increasing complexity of specialty-based healthcare, most countries lack a comprehensive approach to developing the specialty practice of APNs. As a result, patients lack access to specialty services and nursing expertise that could improve the quality of their care and health outcomes. Credentialing is foundational for professional nursing practice. Specialty certification is one type of credential that may provide a strategy to improve the development, recruitment, and retention of APNs.

Objectives:

1. To improve understanding of credentialing for APNs, with a focus on certification
2. To provide internationally relevant recommendations about the specialty certification of APNs by:
  - Comparing the strengths, limitations, and outcomes of different approaches to APN specialty certification.
  - Examining the insights of international stakeholders about APN specialty certification.

Methods: A scoping review of the literature on APN specialty certification was conducted. APNs, regulators, educators, nursing association leaders, and employers participated in interviews and group meetings.

Results: 76 publications were included in the review. 72 stakeholders from 25 countries participated in the project. Two types of APN specialty certification were identified: mandatory entry-to-practice and voluntary post-entry-to-practice. Both have important implications for quality of care and APN mobility, recruitment, and retention. There was a variability in program features (e.g., type of certifying organisation, competency development, resources), certification requirements, and competency assessment methods. No studies evaluated certification outcomes. There was stakeholder consensus about the importance of APN specialty certification for workforce development.

Conclusion: Specialty certification may provide an essential building block to develop and sustain an APN workforce with the competence to deliver safe and effective care. There is limited evidence to support any one approach to specific certification. Flexible, principle-based approaches are important for making country-level decisions about APN specialty certification programs that are contextually relevant.

Significance: Evidence-informed and principle-based approaches can guide decisions and national and international initiatives for implementing APN specialty certification programs.



## **European example with a focus on what APNs and others need to do to influence policy to support specialty certification of APNs**

### **Ber Oomen**

Objective: This presentation aims to illuminate the critical role of Advanced Practice Nurses (APNs) in shaping European policy to support specialty certification. It provides a roadmap for APNs to actively engage in advocacy, leadership, and collaborative efforts, emphasising the significance of education, certification, and recognition within the European policy framework.

Approach: The presentation takes a proactive stance, moving beyond the presentation of evidence to address the need for establishing programs with dedicated funding. It explores the essence of leadership in action, urging APNs to embrace extensive travel, networking, and relationship-building to become integral members of the policy family.

Background: Focusing on the European policy ecosystem, the presentation recognises the current absence of specific avenues for communication and advocacy. It delves into the imperative of program establishment and strategic lobbying, stressing the urgency for APNs to fill the void and actively contribute to policy discussions.

Methods: The presenter advocates for a collective approach, debunking the myth of the perfect one person. Drawing examples from public, institutional, and private sectors, the presentation illustrates the multifaceted nature of policy influence. We will showcase successful models from other disciplines for influencing credentialing policies that could be considered for APNs.

Key Learnings - How APNs Can Contribute: APNs are encouraged to actively participate in the policy family, engaging decision-makers and stakeholders. The presentation emphasises the collaborative approach, urging multiple representatives to work together for effective policy influence. It underscores the need for APNs to contribute to the development and implementation of regulations supporting specialty certification.

Conclusion: The presentation concludes with a call to action, inspiring APNs to proactively shape the policy landscape. By becoming catalysts for change through leadership, networking, and collaborative efforts, APNs can ensure their integral presence in policy discussions. The aim is to drive the development of regulations that genuinely support and recognise specialty certification.

Significance of the Presentation to Improve Understanding: This presentation bridges the gap between evidence and policy. By providing a strategic roadmap and showcasing successful models, it empowers APNs with the knowledge and motivation to actively contribute to the policy discourse, ultimately improving the understanding and recognition of specialty certification within the European health policy ecosystem.



## **Advancing Excellence: The Evolution of Advanced Practice Nurse Certification in Singapore**

Associate Prof Zhou Wentao  
ICN NP / APN Network CSG (Board) Member & Alice Lee Centre for Nursing Studies, National University of Singapore (NUS)

Background: In response to the ever-changing healthcare landscape, the role of Advanced Practice Nurses (APNs) has become integral to delivering high-quality and patient-centered care. The certification process for APNs in Singapore is undergoing a transformative phase to adapt to these dynamic changes. This presentation aims to showcase and elucidate the ongoing evolution of APN certification in Singapore through collaborative efforts among all stakeholders.

Objectives: This presentation is to 1) share the evolving of Singapore APN certification from OSCE to portfolio, 2) examine the current state of APN certification, 3) identify driving forces behind the evolution, 4) discuss challenges and opportunities, and 5) share strategies that enhancing the certification framework in Singapore.

Approach: An evolution of APN certification in Singapore will be presented, showcasing the portfolio as an innovative approach to APN certification, and providing valuable insights to attendees. We hope this presentation will foster a comprehensive understanding of the factors shaping the certification process and contributing to the continued advancement of APN practice in Singapore.

Key Learnings: Participants will gain insights into the evolution of APN certification in Singapore. This session will share the evolution of APN certification in Singapore is driven by healthcare needs, the required competencies of APNs, a scientific evidence-based work-based assessment framework, and competent clinical supervisors. The actionable strategies for advancing APN certification excellence in Singapore involve collaborative efforts among stakeholders to successfully implement an updated certification framework.

Conclusion/Significance: This presentation holds significant importance for healthcare professionals, educators, policymakers, and stakeholders shaping the future of nursing globally. By sharing insights into the evolving nature and challenges of APN certification in Singapore, we hope that this presentation will exert a positive influence on the advancement of APN development and facilitate a collaborative discussion to explore better ways for APN certification globally.



## 6.3 Symposium: The Implementation of APNs in Primary Health Care in Germany

NPAPN2424035

Convenor: Prof Dr Renate Stemmer  
Catholic University of Applied Sciences Mainz, Germany

**Purpose:** Multimorbidity is a common phenomenon among patients treated in general practices. Key challenges within this group include functional difficulties, polypharmacy, treatment burden, fragmentation of care, reduced quality of life and increased health care utilization. These problems cannot be solved in the short consultation time of a general practitioner (GP) since there is an increasing shortage of GPs. The project "Case-based care of multimorbid patients in general practice by Advanced Practice Nurses" (FAMOUS) aims to examine whether the integration of APNs in the primary care of multimorbid patients in Germany leads to optimized care of the target group. Funding: German Innovation Fund of the Federal Joint Committee; duration of the project: 10/2020-12/2024

**Objective:** The objective of this symposium is to discuss health related outcomes of patients after 12 months of APN-intervention and interprofessional collaboration in care of multimorbid patients by APNs in GP practices based on the project-specific logic model.

**Rationale:** The intervention of FAMOUS includes the integration of 9 APNs into the care for multimorbid patients in general practice for 24 months. The project involves 871 patients. The tasks of the APNs include in-depth assessment, preparation, implementation, monitoring and evaluation of a person-centred and evidence-based care plan.

The implementation of APNs in a new setting is a complex intervention. Therefore, effects cannot be derived linearly. The logic model identifies essential elements and shows a variety of reciprocal mechanisms of action. The logic model integrates the structure-process-outcome model and recognises the interprofessional collaboration as an essential process element. Other essential process elements are person-centred and evidence based care, integration of affiliates/relatives and collaboration with network partners in the health care system. All process elements together contribute to patient outcomes.

**Summary:** The symposium presents the logic model that underlies the evaluation of the implementation of APNs in GP practices and presents the results of two sub-studies on patient reported outcomes and interprofessional collaboration.

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### **Case-based care of multimorbid patients in general practice by Advanced Practice Nurses – a logic model for a complex intervention**

#### **Renate Stemmer**

Catholic University of Applied Sciences Mainz, Germany

**Background:** The implementation of APNs in the FAMOUS project in the GP practice that is completely new for Germany, represents a complex intervention. Logic models are helpful in identifying and organising influencing factors and impact mechanisms (Moore et al. 2015).

**Objectives:** To develop a logic model to identify key elements and impact mechanisms of the implementation of APNs in GP practices and make them transparent as a basis for evaluation.

**Methods:** Following a careful definition of the planned intervention and based on a literature review, the FAMOUS study team, which is made up of members of various professional groups, developed a logic model. The model was presented and discussed with the advisory board (representatives of patients, nursing scientists, physicians, politicians and statisticians). According to the Quality of Health Outcomes model, mutual interactions between different main elements and between these elements and the context are assumed (Baernholdt et al 2021).

**Results:** The logic model consists of 4 pillars (structure, process, output, outcomes). These pillars are surrounded by context factors. The structures include person-related and network-related structural characteristics. Process elements are person-centred and evidence based care, integration of affiliates/relatives and collaboration with network partners and interprofessional collaboration. The process elements are backed by a field that reflects the respective performance of the actors. The output pillar contains only the element of the organisational and cultural change in the GP practice. The outcomes are categorised by target group (patients; relatives; GP practice, APN, funding agency). The mechanisms of action are assumed to be reciprocal in each case.

**Conclusion:** Through the development of the logic model, a number of factors were identified that help to evaluate the implementation of APNS in the primary health care sector and to interpret the results.

**Significance:** The development of a logic model is time-consuming but rewarding work.



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## Patients' Outcome after 12 months of APN Care in GP Practices in Germany

**Sophie Petri**, Joachim Klein, Olivia Wöhrle, Renate Stemmer  
Catholic University of Applied Sciences Mainz, Germany

Background: Multimorbid patients have complex care needs (DEGAM 2017). German primary care focuses mainly on medical needs but does not address complex needs to cope with everyday life (German Science and Humanities Council 2023). The multiprofessional care approach in GP practices could offer patients a new perspective in dealing with their health situation. To evaluate a new type of healthcare, patient reported outcomes are needed.

Objectives: This sub study aims to evaluate patients' health related outcomes in 14 areas (e.g. clinical-, psychosocial-, living conditions) after 12 months of APN-intervention.

Methods:

Design: longitudinal, quantitative approach

Sample: 379 patients who completed the intervention period of 12 months between 10/2021 and 06/2023

Data collection: project-specific patients questionnaire based on APN-BQ (Advanced Practice Nurse Counselling Quality), 4-stage scale (very good to very bad); handed out individually before (t0) and after (t1) 12 months of APN care

Data analysis: comparison of the t0 and t1 data using t-Test for matched samples

Results: n = 99 patients (38.7 % male, 61.3 % female, average age 79.5 years) returned the t0 and t1 questionnaires, response rate 26.12 %.

There are significant improvements from t0 to t1 in 2 of the 14 areas assessed by the patients: "metabolism" (p=0.037) and "skin condition" (p=0.028). Other areas just missed the significance level.

Conclusion: The improved results in the areas of metabolism and skin condition contribute to an improvement in the patients' state of health. It has to be considered that clinical factors such as "metabolism" are easier and faster to influence than "psychosocial factors", "life circumstances" or "self-efficacy factors".

Significance: Despite the high complexity and variety of care needs of multimorbid patients, the APN care leads to significant results in clinical areas. It is difficult to influence psychosocial and living conditions in a short period of 12 months.

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## APNs' collaboration in primary health care setting

**Olivia Wöhrle**, Renate Stemmer  
Catholic University of Applied Sciences Mainz, Germany

Background: Primary care and the care of multimorbid people with complex problems require different perspectives, skills and knowledge to deal with them (Nancarrow et al. 2013). In contrast, German primary care is characterized by the prevailing role of General Physicians (GPs) and a lack of interprofessionalism (German Science and Humanities Council 2023). In international context, APNs play an important role in interprofessional care of multimorbid patients.

Objectives: This study aims to examine the experienced gains and challenges of interprofessional collaboration in care of multimorbid patients by APNs in GP practices.

Methods:

Design: qualitative cross-sectional study

Sample: all APNs who are part of FAMOUS (n = 8), employed in GP practices, who cared for multimorbid patients for 12 months

Data collection: guideline-based interviews (n = 8); time of data collection: 09/2022 (after first 12 months of APN intervention)

Data analysis: content analysis using a deductive-inductive procedure (Kuckartz 2018)

Results: 18 main categories have been developed, some of which can be gains or challenges depending on their characteristics; examples are: willingness to cooperate, role expectations, position within the family practice team. Main categories of gains are e. g. position within the patient-specific network of care providers, working at eye level with GPs, cooperation with medical assistants. Main categories of challenges are e. g. limited decision-making authority, demarcation of external APN role expectations.

Conclusion: Interprofessional cooperation of APNs with all participating groups is successful. Challenges come from the past understanding of care which is reflected in restrictive legal norms and traditional expectations.

Significance: APNs succeed in obtaining an adequate position in a new area of responsibility within care lasting several months. This experience offers starting points for the further development of the understanding of APNs and also of legal norms within the aim of opening up decision-making authority for APNs.



## 6.4 Investing in the APN Health Workforce

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### The Lived Experience of Nurse Practitioner Role Implementation: A Phenomenological Study

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**Background:** The role of nurse practitioners (NPs) in Saudi Arabia is undergoing rapid evolution owing to the rising demand and shortage of healthcare providers. However, little is known about the lived experience of NPs working in the Saudi healthcare sector.

**Objective:** To explore the lived experience of NPs working in the Saudi healthcare sector.

**Methods:** A phenomenological approach with a purposive sampling technique was conducted. Data were collected from eight NPs between June and October 2022 via semi-structured interviews. Based on Braun and Clarke's framework, thematic analysis was used to examine NPs' self-description, perception of challenges, facilitators, support systems, as well as their perceived future role in the Saudi healthcare system.

**Results:** This study identified six primary themes. NPs described themselves as specialized, certified, and independent nurses with advanced skills (Theme 1). However, they faced a non-unified scope of practice (Theme 2). They encountered challenges pertaining to regulatory aspects, payment issues, administrative support, and awareness of their role (Theme 3), but identified having clear practice scopes, prior experience, structured training, fair compensation, and support from healthcare providers as facilitators (Theme 4). Despite existing challenges, they described the future of the NP role in Saudi as promising due to increasing interest and recognized value of their role (Theme 5). They indicated that experiences with patients, families, and healthcare providers varied but were influenced by geographical, training, and educational backgrounds (Theme 6).

**Conclusion:** NPs in Saudi Arabia are facing several challenges but see a promising future considering the current demand and opportunities. There is a high need for regulatory changes and stakeholder involvement to fully implement and recognize this role in the healthcare system.

**Significance:** This study provides more insights to the global body of evidence regarding the experiences of NPs in countries that are in the process of developing this role.



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### Content Validation of Advanced Practice Role Delineation Tool

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**Background:** Advanced practice nursing is often used in the literature as an all-encompassing umbrella term. However, it is necessary to distinguish between general, specialist, and advanced practice nursing roles to create practice standards and guide the development of these roles. The Strong Model of Advanced Practice was developed in the US in the 90s. In recent years this model and its modifications e.g., the Advanced Practice Role Delineation tool, have been used around the world. It is imperative to provide research evidence on the validity of the tool.

**Objectives:** To describe the findings of the Advanced Practice Role Delineation tool content validation study.

**Methods or Approach:** A content validation study with three rounds (n=9, n=8, n=5) was conducted in 2019 to assess the content of the Advanced Practice Role Delineation Tool in Finland.

**Key learnings or results:** Based on the content validation study, a 45-item amendment of the Advanced Practice Role Delineation tool was created. The item content validity index of the modified 45-item Advanced Practice Role Delineation tool varied between 0.88 and 1.00, reflecting excellent item validity. Furthermore, the Scale Content Index Average of 0.97 indicates high content validity and acceptability of the modified tool.

**Conclusion:** This study validated the Advanced Practice Role Delineation tool in the Finnish context thus the results may be limited in other countries. However, the steps taken in this study were effective and may be replicated in other countries. Future studies will need to validate the modified tool in different contexts.

**Significance (Impact and Reach)**

For the first time, Advanced Practice Role Delineation tool validation resulted in the addition of new items to the tool. Five new items identified by the expert panel, reflect the contemporary changes in nursing and advanced practice nursing activities and modern 21st-century healthcare organizations.

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### **Clinical Nurse Specialist Capabilities in the Finnish Health Care**

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Background: According to Hase and Davis' (1999) framework, capability consists of five dimensions: can apply competencies in novel as well as familiar situations, works well in teams, is creative, has a high level of self-efficacy and knows how to learn. All five dimensions exist in clinical nurse specialist role. Additionally, clinical nurse specialists identify the factors affecting the scope of practice. In Finland, there are about 74 000 nurses of which 120 are clinical nurse specialists. A minority of them work in direct patient care.

Objectives: To describe the capabilities of the clinical nurse specialist involved in direct patient care in Finland.

Methods: A qualitative descriptive study. Semi-structured online clinical nurse specialist interviews (n = 10) are conducted during the spring 2024. The data will be analyzed by abductive content analysis which includes inductive and deductive analyses. In the deductive analysis, we use Hase and Davis' capability framework.

Key learnings: Clinical nurse specialist capabilities will be clarified and specified. We will outline the capability framework and describe how the clinical nurse specialists use and develop capability in their daily practice. Affecting factors related to the scope of practice will be identified. The results will expand our knowledge on the necessary capability and its development to reach a successful performance in the clinical nurse specialist role.

Conclusions: By identifying the clinical nurse specialist capabilities, their full potential can be optimally reached. This ensures high-quality, accessible care and helps nurse leaders utilize and develop the clinical nurse specialist role.

Significance: The results may be utilized to develop education and standardize the clinical nurse specialist role. Capability and its development need to be further explored so that the maximum potential of the clinical nurse specialists can be utilized effectively.

NPAPN24005

### **Development of the Prescribing Implementation Model (PIM): A review of systematic reviews**

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Background: Non-medical prescribing (NMP) is increasingly used to support service developments, and workforce shortages that challenge global access to healthcare. Limited theoretically informed guidance exists on how organisations/services can successfully undertake its implementation.

Objectives Aim was to identify determinants to implementation of independent prescribing to develop the Prescribing Implementation Model (PIM).

Methods: Six electronic databases were searched (March 2021). A four-stage review of systematic reviews was conducted that i) identified existing reviews reporting NMP barriers and facilitators; ii) graded review quality using AMSTAR (A Measurement Tool to Assess systematic reviews); iii) synthesised evidence to develop analytic themes; iv) identified overarching determinants for successful NMP implementation. Agreed determinants were then used to populate PIM.

Results: Of 3,477 identified articles, 11 were included, four focused on qualitative studies, and 7, mixed-methods. Results identified consensus regarding barriers and facilitators to implementation across four phases: i) preparation, ii) training; iii) transition and iii) sustainment. Barriers and facilitators were found to be interlinked and could arise in more than one phase. To avoid duplication and support interpretation these were mapped to reflect highest level of alignment. The Prescribing Implementation Model (PIM) comprises 12 determinants of effective implementation located within the four phases. The majority (n=6) are located in the preparation phase, as this is where most determinants (i.e. governance and organisational infrastructure) are best initiated.

Conclusion: Barriers and facilitators to NMP implementation are similar across professions and have persisted over time, arising as issues for each new profession that embarks on the prescribing role. The Prescribing Implementation Model (PIM) sets out key determinants that need to be considered during each phase of implementation and reiterates the importance of the preparatory stage.

Significance: The PIM is an important development that can be used to help optimise NMP potential in the UK and around the world.



## 6.5 Extending the Reach, Amplifying the Impact, and Realising the value of APNs

### Assessing Advanced Practice Nursing Outcomes – An Overview

#### Dr Ruth Kleinpell

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Background: Globally, advanced practice nurses (APNs), including nurse practitioners (NPs), certified registered nurse anesthetists (CRNAs), clinical nurse specialists (CNS) and certified nurse-midwives (CNM) play a significant role in providing healthcare services in a variety of settings. As APNs assume an increasing role in providing care to patients in hospital, outpatient, and community settings, measuring the impact of their care on patient outcomes and quality of care measures becomes a necessary component of performance evaluation. A number of studies have been conducted which demonstrate APN outcomes. However, APNs often report that measuring outcomes of their care is difficult.

Objective: This session will provide an overview on assessing APN outcomes, highlighting international examples.

Rationale: This session will provide content and engage participants in discussion at the end of the symposium for participant sharing of best practices for assessing outcomes of APN practice.

Summary: Assessing outcomes of APN practice is essential to showcase impact and support continued expansion of APN roles.



NPAPN24016

### Capturing Advanced Practice Nursing Sensitive Indicators

#### April Kapu

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Background: Identifying metrics relevant to the quality of care, safety measures, and patient outcomes specific to Advanced Practice Nurses (APNs) can strategically highlight their impact. This presentation aims to illustrate how APN-specific metrics can demonstrate outcomes across various specialty settings, encompassing hospital-based roles, outpatient settings such as APN-led clinics, and community-based practices.

Objective: This presentation will highlight experiences from a large academic medical center with over 1400 APNs. It will delve into strategies for effectively capturing outcomes in specialty-based APN roles.

Rationale: The rationale supporting this initiative lies in the common uncertainty among APNs regarding the optimal methods to demonstrate their impact through APN-sensitive indicators.

Summary: Showcasing the distinctive ways in which APNs influence nurse-sensitive indicators is crucial for advancing and broadening the scope of APN roles.



NPAPN24016

### Strategies for Demonstrating Impact of the Advanced Practice Nursing Role

#### Dr Brigitte Woo, Dr Wentao Zhou

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Background: While measuring the outcomes of APNs is important, it is typically not a standard part of institutional practice. However, there has been a significant demand to justify the value of the APN contribution. Despite there are many existing studies with examples, integrating the outcomes of APN practice into clinical practice is worth to be further discussed.

Objective: This session will discuss strategies for assessing outcomes of APN practice, highlighting several international exemplars in different care settings. This will provide participant with insights of the effective approaches for measuring the impact of APN practice.

Rationale: Given the ongoing development of APN roles internationally, equipping clinicians with strategies for demonstrating impact is essential. This symposium will facilitate the adoption of proven methods to recognize the effectiveness of APNs.

Summary: Replicating strategies that have been successful can assist APNs internationally in identifying their care outcomes and showcase their impacts.

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**European Federation of Nurses survey on current advanced practice nursing across Europe and five-year strategy**

**Wendy Preston**

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An online questionnaire was distributed among 35 national nurses' associations across Europe in March 2021. The questionnaire solicited input on 60 items concerning key features of advanced practice nursing, intending to map existing developments and better understand the current state of advanced practice nursing in Europe. This is being repeated in 2024 and we will share and discuss the results, comparing to any movement since 2021.

The EFN five year strategy will be discussed which includes core competencies for advanced practice nurses, country level principles, a model and roadmap for implementation.

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## 6.6 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### The reliability and validity of the Observed Structured Clinical Examination as an assessment of capability within Advanced Practitioner curricula

**Colette Henderson<sup>1</sup>, Dr Kevin Stirling, Dr Anna Jones,** Lizanne Hamilton-Smith, Dr Kate Goodhand, Prof Melanie Rogers, Jonathan Thomas, Angie Banks, Ann Sunderland, Melanie Clarkson, Pete Daffada, Angharad Ladd  
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Background: Observed Structured Clinical Examination (OSCE) assessment was first instituted in the University of Dundee, Scotland by Harden and Gleeson in 1975 and has gone on to become widely adopted within undergraduate and postgraduate curricula globally. It has become accepted within advanced practice curricula that capability is assessed using the OSCE but there is a lack of lived experience data.

The COVID-19 pandemic necessitated a move towards remote assessment which meant that OSCEs were delivered within contexts where this assessment was not traditionally undertaken. This rapid adoption of a dispersed manner of assessment along with a national drive to instigate compassionate assessment practices (Quality Assurance Agency, 2020) has challenged Advanced Practice (AP) faculty to examine the validity of the OSCE as a mean of assessing the capability of APs within a programme of study and whether this assessment supports the translation of knowledge into practice.

Method or Approach: In 2023 a multiprofessional collaboration of UK educators developed and launched a UK wide survey of AP educators and students to capture the lived experience of OSCE assessment.

The aim of this oral presentation is to provide feedback about the data collected from this survey and to offer recommendations for current and future requirements of the profession and AP curricula.

Results: 338 students and 196 educators from across the UK responded to this survey. Analysed results detail demographics of students and educators and answer key questions about the experiences of this form of assessment within advanced practice curricula in the UK.

Conclusion: This presentation will offer an insight into OSCE assessment in advanced practice considering the perspectives of students and educators.

Significance (Impact and Reach): Development of a UK wide multiprofessional approach to Advanced Practice assessment supports robust and benchmarked standard of assessment in Advanced Practice curricula.



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### Growing PRIME-NP: Coalition for Competency-based Service Learning

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Background: Competency based education is the current evolutionary force in nurse practitioner (NP) preparation in the US. Objective standards for evaluation are key elements for propelling graduates into the profession with a skill set that can be clearly articulated to industry and practice partners.

Objectives:

1. Disseminate competency-based model for curricular, learning activity and evaluation development.
2. Maintain fidelity with the model while tailoring educational offerings to meet each school's needs.
3. Pilot in two program.
4. Pilot expansion of the model use into specialty areas: mental health and telehealth.

Methods: A consortium of 5 public and private US university based NP programs used the PRIME-NP model and grading rubrics to design experiential learning activities around the most commonly seen ambulatory care diagnoses. These activities were then tailored to each school's particular student body and practice partners' needs while maintaining fidelity with the model. Scenarios were developed by subject matter experts. Learning activities were expanded to include mental health and telehealth content. The learning activities and evaluations were piloted at two of the schools. Results are pending (activities are being held throughout the Spring 2024 Semester).

Key Learnings: PRIME-NP is a valid and reliable framework for creating competency-based curriculum, experiential learning and evaluations. Use of the model can be expanded with fidelity beyond primary care into specialty areas like mental health. Additional specifics will be added upon review of pilot activities.



Significance: Educators and new graduates need to be able to articulate scope of practice upon program completion. Evaluations from these learning activities provide discrete, objective NP competencies for potential employers and credentialing bodies.



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### **Cross-Jurisdictional Collaboration of Canadian Nursing Regulatory Bodies in the Development of Nurse Practitioner Standards of Practice**

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Background: Responding to an opportunity to streamline nurse practitioner (NP) regulation and foster a more mobile and responsive Canadian NP workforce, nursing regulators across the country adopted a new framework for NP regulation. A core framework element entrusted to each jurisdiction included the development of clear and consistent NP standards of practice. The nursing regulatory body of New Brunswick, Canada responded to interest for cross-provincial collaboration in the revision of their standards.

Objectives: The objective of this project for the Nurses Association of New Brunswick (NANB) was to collaborate with other Canadian jurisdictions to conceptualize, develop, and implement NP standards of practice consistent with the new Canadian NP regulatory framework.

Methods/Approach: A working group comprised of representatives from the College of Registered Nurses of Saskatchewan (CRNS) and the NANB conducted a jurisdictional scan followed by five stages of iterative document development using the Standard of Good Regulation evidence framework (Professional Standards Authority, 2020). Internal and external consultation was conducted using surveys in both provinces with CRNS and NANB stakeholders, including NPs, employers, council, and government.

Key Learnings/Results: This project resulted in the creation of a shared NP standard document for approval and implementation. Key learnings included: 1) an improved survey response (19%) rate using a cross-jurisdictional, collaborative approach, and 2) insight into the similarities of Canadian NP practice regulation, regardless of speciality, setting, and location.

Conclusion: With the movement to a standardized pan-Canadian NP regulatory framework, the collaborative work between two jurisdictions to revise and refine NP practice standards is a first step toward consistent NP healthcare delivery.

Significance (Impact/Reach): The development of shared NP standards of practice is integral to the portability of NP practice expectations. The results from this project serve as an example of the benefits to cross-jurisdictional collaboration in NP regulation for the international audience.



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### **Examining the Potential of Communities of Practice to Facilitate Nurse Practitioners' Transition to Practice**

**Breanna Lloy**<sup>1</sup>, Dr Elizabeth Peter<sup>1</sup>, Dr Monica Parry<sup>1</sup>, Dr Carolyn Mitchell<sup>1</sup>  
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Background: Despite the growth within the Nurse Practitioner (NP) profession and the research demonstrating that NPs provide safe care, the turnover rate for NPs in the United States was 15.3%, in comparison to their physician counterparts at 7%. This high turnover has been described in the literature as frequently relating to NPs' transition to practice, specifically as new graduates.

The research is clear on the struggle new graduate NPs endure when they transition into practice environments from school. Nevertheless, research also describes facilitators to new graduate NP transition including: (a) transition to practice programs; (b) orientation; (c) mentorship; (d) previous nursing experience; (e) autonomous practice; (f) communities of practice (COP). There is an interconnectedness amongst the facilitators to NP transition to practice. For example, transition to practice programs and COP contain mentorship. This leads to the idea that a multifactorial approach, such as COPs, may be needed to facilitate a fiscally responsible approach to new graduate NP transition to practice.

Objective: The purpose of this pre-implementation study was to examine the perceived fit of using COPs to facilitate new graduate NP transition to practice.

Methods: Fourteen semi-structured interviews were conducted with new graduate NPs, senior NPs, managers/leaders, and educators using interpretive description methodology. Data was analyzed using thematic analysis.

Results: Six themes emerged from the data: (a) necessary resources for COP implementation; (b) necessity of decision maker support; (c) facilitation of knowledge sharing through peer support; (d) misunderstanding the NP role; (e) fostering a sustainable workforce; (f) COP implementation considerations.

Conclusion: Study will be completed in April 2024. Conclusions will be available for the conference.

Significance: Preliminary analysis of the data indicates the results from this study can be used to guide the implementation of COPs within and outside of healthcare organizations to help new graduate NPs transition to practice.



## 6.7 The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing

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### The implementation of blood glucose management in patients utilizing insulin pump therapy under the guidance of nurse practitioners

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**Objective:** To investigate the effect of nurse practitioner (NP)-led blood glucose management in patients with insulin pump therapy in non-endocrine departments.

**Methods:** A total of 134 patients receiving insulin pump treatment in the non-endocrinology department of our hospital from May to December 2023 were selected as the research objects. The NP-led blood glucose management mode was adopted to analyze the quality of blood glucose management during insulin pump treatment, including: the rate of blood glucose compliance, the incidence of hyperglycemia, severe hyperglycemia, grade 1 hypoglycemia, grade 2 hypoglycemia, and the incidence of insulin pump adverse events.

**Conclusions:** The NP-led blood glucose management model can improve the quality of blood glucose management in patients with insulin pump therapy in non-endocrine department, reduce the incidence of adverse events in insulin pump therapy, and effectively and safely control blood glucose.



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### Implementing an Interprofessional Case-Based Pharmacotherapeutics Learning Activity for APRN and PharmD Students

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**Background:** Advanced Practice Nurses (APRNs) and PharmDs care for individuals with complex health needs. Evidence shows that pharmacist-provider team integration and collaborations facilitate positive patient outcomes by improving team drug-therapy decision making, continuity of care and patient safety (Makowsky et al, 2009). The purpose of this project was to develop an interprofessional learning activity to enhance collaboration in drug-therapy decision-making.

**Learning Objectives:**

1. To describe an interprofessional learning activity designed and implemented to promote team-based collaboration in drug therapy decision-making between APRN students and PharmD students.
2. To enhance APRN-Pharm D student knowledge of roles and potential for collaboration in the ambulatory setting.

**Methodology:** A case study regarding the assessment and management of a patient with congestive heart failure and comorbid diabetes was developed. Students signed up in groups of 4-6 students. They received information about each profession's role and scope of practice as well as case information one week in advance of the activity. Hour-long online sessions were conducted in which students engaged in group discussion and formulated an evidence-based plan of care including drug therapy.

**Key Learnings or Results:** 135 students participated over two years. Students completed a qualitative reflection on the experience and were administered the Interprofessional Collaborative Competencies Attainment Scale (ICCAS) pre and post activity to evaluate the efficacy of the activity in promoting collaborative practice and enhancing knowledge of the other's profession.

**Conclusion:** This activity enhanced interprofessional education and collaboration in drug therapy decision-making as evidenced by the increase in ICCAS scores post activity, while creatively using technology to link students in the two professions studying at different campuses.

**Significance:** This activity highlights an interprofessional learning activity that is adaptable to be used in an online environment increasing its versatility in reaching large numbers of students and positively enhancing collaboration among participants.



**Interprofessional Healthcare Education in the World’s Largest Medical Center Utilizing Nurse Practitioner Students as Leaders**

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Purpose: Discuss the evolution of an interprofessional program in a health science centre located in one of the largest medical centre in the world.

Objective:

1. Describe development of the multiple components that establish the infrastructure of interprofessional healthcare education.
2. Illustrate how a Nurse Practitioner student led interprofessional realistic large mass casualty event is developed.
3. Demonstrate the common thread of effective communication as the tool leading to successful IPE implementation.

Rationale: Analyse infrastructure implementation and communication pathways to accomplishing successful replication of Interprofessional education (IPE) in a large health science centre

Summary: This presentation will discuss and illustrate the use of a health science interprofessional education program utilising Nurse Practitioner students as leaders/mentors for other health science students. Communication tools will be shared to demonstrate how to implement successful Nurse Practitioner Student Led IPE Scenarios.



**Advanced Practice Nurse (APN) for neuro-oncology patients and their families**

**Lea Kauffmann<sup>1</sup>**

<sup>1</sup>Medizinische Hochschule Hannover, Hannover

Background: Neuro-oncology patients suffer from cognitive impairment and mental health problems more than other oncology patients (Paterson 2023). In addition, postoperative neurological deficits can interfere with daily functioning and affect patients' quality of life (Paterson 2023, Byrne 2022).

Objectives: In 2017, APN implementation was initiated in a neurosurgical unit according to the PEPPA framework. To identify the care needs of patients and their relatives, we used a mixed methods design with semi-structured interviews and a standardised questionnaire. Statistical analyses of patient cases, including the number of neuro-oncology patients and average length of stay, were used. After implementation of the new model, periodic evaluations are planned using the same standardised questionnaire.

Findings: The results of the interviews show a need for advice and guidance after a brain tumour diagnosis. Advice on treatment options, side effects and managing cognitive and physical impairments at home was mentioned. The questionnaire results show a lack of structured advice, guidance and information for patients and their families. Discharge planning was unsatisfactory for patients.

The new model of care includes the implementation of an APN and a structured interdisciplinary pathway for neuro-oncology patients. For example, a distress assessment, a screening for palliative symptoms and a more detailed history, including socio-cultural background, are carried out on admission. Low-threshold services for pre- and post-operative counselling have been implemented. Psycho-oncology, palliative care specialists and additional therapists are involved early after diagnosis.

Evaluation of the new care model showed high satisfaction with counselling, guidance and discharge planning. Statistical analysis showed that the number of patients increased and the length of stay was reduced.

Conclusion: Advanced practice nurses help patients feel more confident and empowered to manage their condition.

Significance: Better counselling and discharge planning leads to a shorter length of stay. This is economically relevant.



## 7.1 Clinical Workshop: Transatlantic Interrelations in Advanced Practice Nursing in Guideline Directed Heart Failure Management

1045

**Dr Margaret Bowers<sup>1</sup>, Michele Carey, Sarah Fall**

<sup>1</sup>Duke University School of Nursing and Duke Health, Durham, United States of America, <sup>2</sup>Tallaght University Hospital, Dublin, Ireland

Background: Heart failure (HF) is a chronic and progressive disorder affecting over 64 million people growing in prevalence globally. HF management presents a challenge to healthcare systems against the backdrop of the variability of the disease trajectory, ageing populations, frailty, complex co-morbidities and persistently high mortality rates. Advanced Practice Nurses (APNs) play a significant role in providing care to this population across diverse health settings.

Importance of the topic: Mortality rates, readmission rates and reduced quality of life add to the burden of HF both to the patient and on the health care organizations. Early identification and treatment of heart failure using guideline directed therapies improves clinical outcomes and quality of life.

Purpose: Describe models of APN practice for patients with HF and strategies to identify, treat and improve patient outcomes in a HF Clinic in Ireland and the Southeast of the United States (USA).

HF guidelines from the USA the European Society of Cardiology and relevant clinical trial results impacting the care of patients with HF will be shared. Share evidence-based approaches to medication titration across diverse clinical practice settings.

Objectives:

1. Define HF stages and classifications
2. Describe evidence-based treatment approaches across global settings
3. Discuss scope of APN practice in HF management models in Ireland and USA

Workshop Methods and format: PowerPoint presentation with polling to engage audience members in active learning. What can attendees expect to happen and how the learning objectives will be achieved? Attendees will gain knowledge and skills to implement US and/or European HF guidelines in their clinical setting including medication titration, diagnostic testing, and strategies to mitigate hospitalizations.

What knowledge, skills, tangible resources participants can expect to take away from the workshop? Attendees will have access to a free app, "Treat HF", to use in shared decision-making conversations with patients and families. This app provides is updated to reflect the current US guidelines for managing heart failure. Also the application of the ESC HF guidelines in practice.

Summary: APNs develop enhanced HF management services internationally and are ideally positioned to be adaptive in augmenting service delivery across all organizations of care.



## 7.2 Clinical Workshop: Integrating virtual and augmented reality into teaching advanced practice nurses: A hands-on workshop

Dr Ray Blush<sup>1</sup>, **Dr Deborah Lee**<sup>1</sup>

<sup>1</sup>University Of Michigan, Ann Arbor, United States

Background: Extended reality (XR), including virtual reality (VR) and augmented reality (AR), have the potential to complement how we train and evaluate health professionals of varying backgrounds in a range of skills. However, there are many challenges when integrating these tools effectively into APN teaching programs, including: recognizing their strengths and limitations, choosing appropriate hardware and software, training faculty, and measuring their effectiveness.

This workshop will provide participants with foundational knowledge of what VR/AR tools are available and facilitate discussion of the most common challenges and possible solutions when integrating them into new or established APN curricula.

Objective 1: Enhance understanding of VR/AR technologies by familiarizing attendees with various VR/AR tools, strengths, and limitations, and how these technologies can be integrated into existing or new APN curricula to enhance learning outcomes.

Objective 2: Provide practical skills for selecting appropriate hardware and software, supporting and training faculty, and integrating VR/AR into teaching programs effectively.

Objective 3: Encourage collaborative learning and idea exchange among participants through focused case examples, group discussions, and presentations.

Participants include faculty and educators with an interest in establishing or optimizing VR and AR-enhanced learning, teaching, and assessment at their institutions.

### Structure of workshop

1. Overview of virtual reality (VR) and augmented reality (AR) (5 minutes)
2. Applicable learning theories underpinning their use (5 minutes)
3. Focused case examples from experienced facilitators highlighting the challenges faced and solutions reached (15-20 minutes)
4. Small group discussion and problem-solving using sample cases with a range of learners, intended learning outcomes, learning environments, and potential challenges. A selection of cases will be available or groups can create their own using a structured template (30 minutes)
5. Presentation of ideas, discussion, and debrief from small groups and facilitators (25 minutes)

### Intended outcomes

- Understand what VR and AR are
- Summarize the learning theories underpinning their use in the education of health professionals
- Critique and appraise XR use in various educational settings
- Reflect on the best practices for using VR and AR in educational settings
- Develop solutions to common challenges when integrating VR and AR into established or new programs



## 7.3 Symposium: Extending the Research Reach and Impact for Advanced Practice Nurses

NPAPN24037

Convenor: Prof Melanie Rogers

National Teaching Fellow for Advanced Practice and Spirituality, Visiting Professor Åbo Akademi University, Vassa, Finland, Director ICN Nurse Practitioner/Advanced Practice Nurse Network Global Academy of Research and Enterprise, The University of Huddersfield

**Purpose:** To offer a description of current work in the UK inspiring Advanced Practitioners across the continuum of novice to expert. The symposium will focus on work undertaken around aspiring student Advanced Practitioners and the subsequent participatory Advanced Practice research developed as a result of the aspiring Advanced Practitioner work and the development of supportive advanced practice doctoral networks in the UK.

**Objective:** The goal of this presentation is to share work undertaken by Advanced Practice faculty within the UK who have worked collaboratively on the following projects:

- Aspiring Advanced Practitioners
- Participatory Advanced Practice Action Research
- Supportive doctoral networks

**Rationale:** Competent and proficient Advanced Practitioners are required to support the provision of safe and high quality patient care. This symposium will detail the work undertaken by a collaboration of Advanced Practice faculty across the UK to support the development of Advanced Practitioners within the UK.

**Summary:** The global pandemic inspired and supported innovations in educational delivery. Wheeler et al (2022) argue that robust Advanced Practitioners' education supports the durability of advanced practice roles. Mackavey, Henderson and Stout (2023) advise collaborative solutions are crucial to support advanced practice education. This symposium will provide an update on collaborative Advanced Practice educational support being undertaken within the UK.

**References:** Mackavey, C., Henderson, C., and Stout, T. (2023) Stepping outside national borders: International active learning educational collaboration events International Nursing Review <https://doi.org/10.1111/inr.12927>

Wheeler, K. J., Miller, M., Pulcini, J., Gray, D., Ladd, E., & Rayens, M. K. (2022). Advanced Practice Nursing Roles, Regulation, Education, and Practice: A Global Study. *Annals of Global Health*, 88(1), 42–42. <https://doi.org/10.5334/aogh.3698>

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### Aspiring Advanced Clinical Practitioners

Dr Anna Jones<sup>1</sup>, Jonathan Thomas<sup>2</sup>, Prof Melanie Rogers<sup>3</sup>, Colette Henderson<sup>4</sup>, **Angie Banks**<sup>5</sup>

<sup>1</sup>Cardiff University, <sup>2</sup>Swansea University, <sup>3</sup>Huddersfield University, <sup>4</sup>University of Dundee, <sup>5</sup>Sheffield Hallam University

**Background:** In 2021, a small group of advanced practice nurse educators from Universities across the United Kingdom (UK) collectively identified the need for support to be offered to students wishing to start advanced clinical practice (ACP) programmes.

**Objectives:** The perceived need for pre-course support was agreed by faculty as the contextual understanding of advanced practice within the UK, anatomy and physiology knowledge and critical writing skills.

**Methods or Approach:** A pre-course workbook was developed as a Xerte application and piloted.

**Key learnings and findings:** The workbook has been accessed by 3600 students and has evaluated as an excellent resource. The team subsequently initially piloted a regional "Aspiring Advanced Practice" programme in 2022. Over 100 prospective students attended a course focusing on:

- Studying at Masters' level and required skills for academic writing,
- Demystifying the role of advanced practice,
- Understanding and developing knowledge of anatomy and physiology,
- The opportunity to meet other prospective students and gain some top tips, and
- Preparing the student and organisation skills.

**Conclusion:** Evaluations of the 2-day face to face course was overwhelmingly positive with students reporting they felt more prepared for their MSc ACP course. Those who participated asked for an additional regional day for students in summer 2023 and that the program should be held each year to prepare and support future ACP students.

Significance: This presentation will focus on how preparing nurses for advanced practice can significantly impact recruitment and retention and the benefits of Universities' working collaboratively.

Developmental work continues with Scotland and Wales are currently collaborating to produce an equivalent aspiring advanced practice programme to engender lifelong learning and collaboration. This will enable the Scottish and Welsh professional associations to increase networking amongst the trainee Advanced Nurse Practitioners, creating a culture of mutual respect and reciprocity between students and educators.

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## Participatory Research in Advanced Practice

**Dr Anna Jones**<sup>1</sup>, Jonathan Thomas<sup>2</sup>, Prof Melanie Rogers<sup>3</sup>, Colette Henderson<sup>4</sup>, Angie Banks<sup>5</sup>

<sup>1</sup>Cardiff University, <sup>2</sup>Swansea University, <sup>3</sup>Huddersfield University, <sup>4</sup>University of Dundee, <sup>5</sup>Sheffield Hallam University

Background: Following the success of the Aspiring Advanced Practice pre-AP course workbook and short course, the team sought to further develop the pre-AP programme workbook and short course.

Objectives: To explore the experiences of students enrolled on Advanced Practice programmes, to enhance pre-AP programme learning tools.

Methods or Approach: Participatory research co-production methods seek to actively involve "co-researchers" who would conventionally be regarded as research "participants" and places strong emphasis on learning from the process of research co-production as much as from research outcomes. The premise of Participatory Research is the ongoing active involvement of co-researchers in all aspects of research process with empowerment being central.

This event ran as a 'World Café' style event (Brown and Isaacs, 2005), which is a simple, effective, and flexible methodology for hosting large group dialogue, involving 'rounds' of dialogue and reflection in small groups.

Questions asked of the co-researchers were wide ranging, including what did aspiring Advanced Practice mean to them as participants. The research also used a method of research known as photo-elicitation. The co-researchers were provided with a choice of photographs of a wide variety of situations, experiences and objects and asked to choose 2 photos that resonated with them.

Key learnings and findings: Findings indicate that participants gained more knowledge of research, however the research pillar was one of the weakest pillars and the most challenging to weave into their roles. Participation in the workshop had made them reconsider their ability to engage in research and identified areas of programme enhancement for educators.

Conclusion: Participatory research offers students an opportunity to fully engage with the research pillar, whilst also enabling the teaching faculty to evaluate and enhance Advanced Practice learning tools.

Significance: Participatory research is an effective tool for co-production that empowers students to engage with the research pillar.

References: Brown J. and Isaac D. (2005) *The World Cafe Book: Shaping Our Futures Through Conversations that Matter*. Berrett-Koehler Publishers.

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## Advanced Practice Doctoral Support Network

Dr Anna Jones<sup>1</sup>, Jonathan Thomas<sup>2</sup>, Prof Melanie Rogers<sup>3</sup>, **Colette Henderson**<sup>4</sup>, Angie Banks<sup>5</sup>

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Background: Doctoral education for advanced practice is becoming increasingly prevalent internationally. Doctoral students come from a wide range of diverse backgrounds in terms of gender, ethnicity, race, nationality, disability and age. Supervision is a fundamental component to support development of doctoral candidates. The 2018 UK quality code for research degrees emphasises supportive, inclusive and quality supervision from an appropriately skilled and knowledgeable supervisory team. Anecdotally it is known there is a lack of doctoral prepared APNs with doctoral dissertation supervisory committee expertise in Europe.

Objectives: To establish a supportive Advanced Practice doctoral support network in Scotland to supplement supervisory support.

Approach: In 2021 an Advanced Practice doctoral support network was established in Scotland. Support from the Scottish Advanced Practice Educators Network ensured that dissemination of information about this network was



Scotland wide. The network consist of 10 students undertaking doctoral educational programmes from a variety of institutions within Scotland. The network meet on a monthly basis to discuss some of their challenges and invite speakers to present on a range of topics, such as academic writing and preparation for viva.

Key Learnings: Advanced practice doctoral students welcome the supportive network. More recently the network have reached out to colleagues across England with the aim of widening the membership. This proposed collaboration has been favourably received.

Conclusion: The main aim of this network is to encourage Advanced Practice doctoral students to link in and support each other during their doctoral journey.

Significance: The network has consequently been invited to support national initiatives, for example in 2023 NHS Education for Scotland (NES) embarked on the development of a supervisory hub to support supervisors of remote and rural Advanced Practitioners. The national approach aims to ensure knowledge and understanding of existing Advanced Practice research being undertaken across Scotland and within the UK.



## 7.4 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

1288

### Perceptions of introducing advanced nurse practitioner (APN) role in general practice in China: a focus group study

**Yanfang Long**<sup>1</sup>, Li LI<sup>1</sup>, Weiru ZHANG<sup>1</sup>, Yinglan LI<sup>1</sup>

<sup>1</sup>Xiangya Hospital, Central South University, Changsha, China

Background: APN roles in primary care, called general nurse practitioner (GNP) in the UK and family nurse practitioner (FNP) in USA, have been playing a crucial role in coping with aging population, increasing number of chronic diseases and higher demand for health care services. However, the APN role hasn't been developed to general practices yet.

Objectives: The study aimed to understand the perceptions to APN roles introduction into general practices from triangular perspectives of general practitioners (GPs), nurse managers and nurses.

Methods: Employing a qualitative exploratory approach, 3 GPs, 4 nursing managers and 8 staff nurses from tertiary acute hospitals, affiliated community healthcare centers and long-term care facilities in Hunan, China, were invited to attend a focus group interview in 2023. The interview was audio-recorded, transcribed verbatim, and analyzed using a content analysis.

Results: Four themes were categorized based on the statements: (1) Significance widely acknowledged, APNs can be an important complement to GPs; (2) Initial role description, education degree and working experiences constructed the fundamental requirements of serving as APNs, core competencies must be pre-defined according to specific settings; (3) Benefits and risks coexisted, considering patient safety as the priority in APN-led services used to be undertaken by GPs; (4) Facilitators and barriers included organizational and individual factors.

Conclusion: Most of the interviewees held a supportive attitudes towards the APN role introduction in general practices in China. Training of APNs might be a possible solution to the shortage of primary care provider. Further research is needed on the scope of practice, core competencies and training of APNs in general practice.

Significance: With the introduction of the role, APNs in general practice can work as the substitutes of GPs, achieving similar health outcomes, high patient satisfaction, and quality of life for their patients while extending their traditional nursing roles.



1578

### River deep mountain high rising to the challenge of Rural Advanced Practice

**Roland Preston**, Lizanne Hamilton-Smith, Clare Carolan

<sup>1</sup>University Highlands and Islands, Inverness, United Kingdom

Background: Rural Advanced Practitioners (RAPs) are extended generalists, providing a wide range of services that carry a higher level of clinical responsibility. Working independently, and often in isolation, they work to promote health and wellbeing providing services across the age spectrum in the Remote & Rural community, primary care and out-of-hours settings. In addition to the theoretical preparation practitioners require to demonstrate enhanced competencies

Objectives: To identify and develop a work-based learning Multidisciplinary Rural Advanced Practice Capability Framework enhancing generic advanced practitioner competencies.

Methods: Working in partnership with clinical experts, specific remote and rural competencies were developed and incorporated into an electronic portfolio forming the central element of the MSc Rural Advanced Practice. Through work based learning and continuous professional development activities students' competencies within 7 domains of Rural Advanced Practice. will be demonstrated. The portfolio utilises a tripartite approach recognising clinical experience integrated with academic and practice-based learning. A detailed learning needs analysis and learning contract conceptualises their development specific to the role. The portfolio will demonstrate 400 hours of rural advanced practice and evidence competence through the application of critical analysis, theory, and research. Overall competence will be assessed by a Rural Practice Supervisor supported by members of the MSc Rural Advanced Practice Team and via a national Rural Practice Supervision Hub and dedicated MS Teams channel.

Results: Students are due to complete their portfolio by November 2024 and formal feedback will be obtained through evaluation questionnaires. Anecdotal evidence from support sessions has been positive.

Conclusion: Working in partnership with expert clinical practitioners has resulted in a competency framework specific to the challenges encountered by remote and rural advanced practitioners.

Significance: The development Rural competencies will enhance the care delivered in remote and rural communities and set standards for remote and rural advanced practice education.



1153

### **Rare Genetic Autoinflammatory Diseases: The NP Role At The National Institutes of Health**

**Patrycja Hoffmann**<sup>1</sup>

<sup>1</sup>NIH, Bethesda, United States

Background: In the past 2 decades, we have witnessed significant growth in our knowledge of hereditary auto-inflammatory diseases. These advances relate to both clinical characteristics and our understanding of the molecular basis for many of them. In each of these diseases, inflammatory episodes recur, often with minimal or no evidence of a provocative event. Inflammation is triggered by the innate immune system. Nurse Practitioners with expertise in the field have made a huge impact on the management of these very challenging yet rewarding patients. One of these diseases is DADA2 (deficiency of adenosine deficiency 2) initially founded at the National Institutes of Health (NIH) in 2014.

Objectives: To explore impact of NPs management of patients with rare genetic autoinflammatory disease, DADA2. Methodology: A comprehensive Individualized management plan was implemented for patients with DADA2 including diagnostic and laboratory testing and multidisciplinary consultation.

Results: Given the complexity and multi-system involvement of patients with DADA2, a comprehensive workup template was created to ensure all 70 patients with DADA2 receive a standardized diagnostic work up. The template included; basic chemistry panel, TB screening, hematology panel, immunology panel, MRI of brain & abdomen, MRA and US of abdomen, ECHO, ECG, consults including neurology, hepatology, audiology, allergy & immunology, ophthalmology, and dermatology.

Conclusion: Implementing this comprehensive workup for each DADA2 patient ensured that the entire DADA2 patient cohort received standardized care during their protocol visits to the NIH. It allowed for improved quality of care and the ability to observe how the disease presents in each patient from the infancy of its inception and going forward.

Impact & Reach: Involving NPs in the care of patients with rare genetic diseases benefits patients and research alike.

Resource: The Inherited Autoinflammatory Syndrome: A Decade of Discovery. Stephen Goldfinger, M.D. Trans Am Clin Climatol Assoc. 2009; 120: 413-418.



384

### **Creative Solution for an Underserved Population**

**Pamela Colley**<sup>1</sup>

<sup>1</sup>Fraser Health Authority, Surrey, Canada

Background: This presentation highlights my journey as a Nurse Practitioner (NP) with Ramsay Hunt Syndrome. This diagnosis caused incomplete facial paralysis and had a profound impact on my quality of life. My experience with the Canadian healthcare system revealed significant gaps in care for people with incomplete facial paralysis, akin to the challenges faced by marginalized or underserved populations.

Objectives: The presentation's objectives are to share the my experience, shed light on the shortcomings in managing incomplete facial paralysis within the Canadian healthcare system, and propose the potential role of NPs in addressing these gaps. My journey has led me to seek specialized care in the United States, highlighting the need for expertise in Canada.

Approach: My experience serves as the foundation for this presentation. My journey, including relearning basic functions like walking, talking, and smiling, underscores the devastating impact of incomplete facial paralysis. The scarcity of resources within Canada's healthcare system, with only one monthly half-day clinic and limited virtual physiotherapy appointments, emphasizes the urgent need for improved care.

It was through my discovery of a specialized clinic in Washington, D.C., that I was able to receive the care I needed more than 4000 kilometers from home. This clinic highlighted the collaboration among facial paralysis specialists. This discovery highlighted the potential for NPs to meet this unmet care need and ensure best practices for this underserved population.

Significance: The presentation will conclude by emphasizing the importance of addressing the healthcare disparities faced by individuals with incomplete facial paralysis in Canada and similar underserved groups. I will propose the role of NPs in establishing specialized clinics and improving access to expert care. By sharing my journey and its implications, I aim to reach healthcare professionals, policymakers, and the broader community, to inspire positive change and outcomes for those in need.



## 7.5 Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

8

### Collaborating with Community Health Workers in Rural Guatemala to Identify and Address Community Health Needs

**Mary Benbenek**<sup>1</sup>, Cheri Friedrich<sup>1</sup>

<sup>1</sup>University Of Minnesota, Minneapolis, MN, United States, <sup>2</sup>University of Minnesota, Minneapolis, MN, United States

Background: Rural Guatemalans often have difficulty obtaining health care due to geography, isolation and a fragmented health care system. A Guatemalan non-governmental organization (NGO) developed a community health worker (CHW) training program to improve health outcomes in rural areas. APRN students were engaged to assist CHWs in health data collection and analysis to identify existing health needs and generate strategies to address.

Objectives: At the end of the presentation, learners will:

1. Describe a program designed to enhance APRN student knowledge of global health issues and to foster international collaboration
2. Articulate outcomes of a collaborative program between APRN students, a Guatemalan NGO and community health workers in identifying and addressing health needs in a rural community

Methods: Eleven APRN students participated in a seven-day global study abroad program. Students completed online preparatory work and participated in lecture/discussions to orient them prior to traveling to a rural community. Students were assigned to groups of 2-3 CHWs and an interpreter. They conducted home visits to administer a health survey to consenting participants. Survey data were analyzed to identify health needs and formulate potential measures to address them.

Results: 69 home visits were completed over three days. Four health needs were identified: persistent cough and flu symptoms, chronic diseases including hypertension and diabetes, maternal health issues, and mental health concerns. Strategies to address each need were developed emphasizing sustainability and availability of resources and supporting the use of CHWs as ongoing community health liaisons. Findings were presented to the village council.

Conclusions: Collaboration with community health workers provides an effective way for APRN students to support community-based initiatives while enhancing knowledge of global health issues.

Significance: The project was replicated in five other rural Guatemalan communities enhancing identification of health needs, implementation of strategies to address and support of the HCW role.



721

### Mapping global nurse prescribing regulations for opioid use disorder: Development of a scoping review protocol

**Dr Mary Ellen Biggerstaff**<sup>1</sup>, **Dr Martha Whitfield**, Gary Atwood, Kelli Kauffroth, Rosemary Wilson

<sup>1</sup>Frontier Nursing University, United States

Background: Countries with nurse prescribing of medication treatment for opioid use disorder (MOUD) include Australia, Canada, New Zealand, Ireland, the Netherlands, the United Kingdom, and the United States. For example, nurse practitioners have been able to prescribe MOUD since 2016 in the United States and since 2012 in Canada, while a regulatory practice change prompted by the COVID-19 pandemic authorized registered nurses and registered psychiatric nurses in British Columbia, Canada to diagnose, treat, and refer for substance-related disorders. Despite the continuing impact of overdose deaths and harms from opioid use disorder, the global regulatory landscape remains understudied.

Objectives: This review aims to elucidate the extent of nurse prescribing regulations for opioid use disorder globally, identifying variations in prescriptive scope and practice across regions, healthcare systems, and jurisdictions.

Methods or Approach: This presentation will focus on the development of a scoping review protocol using the JBI methodology. We outline development of the review question, using the population, concept, and context criteria proposed by JBI; discuss development of the search strategy, including an outline of parameters for the gray literature search; and share the rationale for a provisional data extraction framework.

Key Learnings or Results: This review will map nurse prescribing regulatory frameworks and scope globally for medications to treat opioid use disorder. We aim to uncover variations, gaps, and best practices, and contribute to the broader discourse on nurse prescribing globally.

Conclusion: This review will provide a more comprehensive picture of nurse prescribing for opioid use globally. By consolidating regulatory information, the study aims to provide a foundation for policy development and healthcare interventions.

Significance (Impact and Reach): Review findings will contribute to understanding of variation in scope and regulation around nurse prescribing for opioid use disorder globally, with potential to inform policy makers and impact future regulation.



1180

### **The Self-Swab Answer: A Global Community Collaboration**

**Sarah Hintz, Dr Tiffany Flood, Dr Kelly Rossler, Dr Erica Plimpton**, Cynthia Sememba  
<sup>1</sup>Baylor University Louise Herrington School of Nursing, Dallas, United States

Background: Globally, cervical cancer is the fourth leading cause of cancer-related deaths among women, with decreased screening service uptake contributing to high mortality. In 2020, Zambia was ranked number three for cervical cancer incidences and cervical cancer-related deaths worldwide. Barriers to cervical cancer screening uptake include stigma, access to gynecological providers or trained primary care providers, the cost of pelvic exams/PAP tests, and awareness of cervical cancer screening. Developing international multidisciplinary healthcare teams is essential to increasing screening uptake and addressing barriers crucial to reducing mortality.

Objectives:

1. Promote innovative cancer screening strategies that foster cross-cultural collaboration and advocate for sustainable healthcare practices globally
2. Identify the role of APNs in addressing barriers to cervical cancer screening from a global perspective
3. Demonstrate the effectiveness of collaborative relationships between transnational universities aiming to optimize health outcomes through preventative policies

Methods or Approach: A multifaceted approach will establish and implement a cervical cancer screening program to increase screening uptake in the Ndola, Zambia community. The initial phase involves collaborating with global community partners to develop a screening policy protocol involving the self-swab of cervical cancer screening. The development of a screening protocol aims to comprehensively capture patients at high risk for cervical cancer and educational programs to educate them on the significance of cervical cancer screening and the self-swab process.

Key learnings or results: An evidence-based practice policy for self-swab was adopted through interdisciplinary collaboration at the University nurse-led clinic.

Conclusion: Collaboration, education, and training are vital in addressing barriers and increasing the capacity for developing policies that impact screening uptake programs.

Significance: Global community collaborations optimally position the APN to impact global health imperatives positively through policy and education program development.



1398

### **French advanced practice nurse and prescriptive authority: an evolutionary policy analysis**

**Dr Christophe Debout**<sup>1,2</sup>

<sup>1</sup>Ifits Nurse anesthesia school, Neuilly sur Marne, France, <sup>2</sup>Chaire Santé Sciences Po/ IDS UMR 1145, Paris, France

Objectives

- Describe the evolution of advanced practice nurse's (APN) prescriptive authority in France
- Identify driving factors involved in this evolution

Background: The inadequacy of the healthcare system to address the evolving needs of the population combined with the shortage of physicians were driving forces which lead to the introduction of APNs in France.

Methods: A policy evolutionary analysis method was used in this study based on document analysis.

Results:

- In 2016, advanced practice was introduced for non medical professionals but they were still considered as medical auxiliaries. In 2018, the nursing profession was chosen to implement the advanced role. Despite the

needs, they were not positioned as first line providers. Their prescriptive authority was limited to renewal and adaptation of existing physician prescriptions.

- In 2019, following a major crisis of emergency departments, a decision was made to introduce APN in emergency departments. This decision was implemented in 2021 without allowing them extended prescription rights.
- In 2023, a law was voted against the will of medical organizations to revise APN's role and to position them as first line provider.
- Since this time, no implementation policies were published by the ministry of Health to extend their prescription authority.

Conclusion:

- France is at the moment in a very unique situation: a legal framework allows APN to be positioned as first line provider but no policies were developed to allow them to diagnose and prescribe
- During this time, access to care is decreasing dramatically leaving patients without general practitioners even those living with a chronic disease.
- A political decision has to be made urgently. Unfortunately, the rapid turnover of Ministers of Health does not facilitate the implementation of change.



## 7.6 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

597

### Promoting young talents - the APN trainee programme at Hannover Medical School

**Dr Regina Schmeer<sup>1</sup>**, Lea Kauffmann

<sup>1</sup>Medical School Hannover, 30625 Hannover, Lower Saxony

**Background:** There is a growing demand for advanced practice nurses (APNs) in Germany. Despite this, a survey of university hospitals in Germany shows a rate of academisation in direct patient care of less than 2%. A comparative survey from 2019 shows an increase of only 1% in recent years<sup>3</sup>.

**Objectives:** The Hannover Medical School (MHH) therefore developed an APN trainee concept based on the PEPPA-framework to increase the quantity of APNs.

**Methods or Approach:** The programme accompanies the students throughout their two-year master's degree studies. The five modules are based on Hamric competencies.

The evaluation of the programme used a mixed-method design. In order to assess the enhancement of competences, students reflected every six months using a spider diagram. In addition, guideline-based interviews were conducted to evaluate the whole programme. These were recorded and transcribed. Kuckartz qualitative content analysis was used for analysis.

**Key learnings or results:** The network diagrams show skills in all areas are already acquired before the start of the programme. Professional competence and interprofessional collaboration are already well developed. However, after completing the programme, all trainees reflect an increase in their competencies in almost all areas. The acquisition of expertise in ethical decision-making, research skills and entrepreneurial aspects is rated as particularly strong.

Interviews describe positive aspects such as role development support, shadowing abroad, peer group and mentoring.

**Significance (Impact and Reach):** The APN trainee programme enables trainees to take the first steps of the PEPPA framework and start to develop their roles with the support of mentors.

The fifth cohort has now started and we can see that the trainee programme and the perception of APN is gaining momentum locally. We expect to see a significant increase in the rate of academisation in the coming years.



914

### Innovative Strategies to Improve Clinical Judgment in Advanced Practice Nursing Education

**Dr Veronica Quattrini<sup>1</sup>**, **Dr Amanda Roesch<sup>1</sup>**

<sup>1</sup>University of Maryland School of Nursing, Baltimore, United States

**Background:** Advanced health assessment (AHA) serves as the foundational course in advanced practice nurse (APN) education to develop clinical judgment. Among the expected competencies of AHA is the adept utilization of advanced assessment skills to conduct focused histories and physical examinations.

Objective structured clinical exams (OSCEs) are one strategy employed in AHA courses to assess this competency. Following the implementation of summative OSCEs in AHA, we found that students were less successful on evaluations requiring clinical judgment than on those requiring memorization. Objectives: This project aimed to augment APN students' clinical judgment in AHA, priming them for clinical coursework.

**Approach:** To bridge the gap in clinical judgment and better equip students for summative OSCEs, a teaching tool was developed. Although this tool demonstrated efficacy in improving performance, notable gaps persisted. Student apprehension about preparedness remained, alongside inconsistencies in OSCE preparation across sections. Consequently, an OSCE preparation workshop was introduced, comprising three key activities. First, students evaluated problem-focused video encounters utilizing a sample OSCE checklist, followed by faculty-led discussions. In the second activity, students selected chief concerns for specific patients, determined necessary examination components, and received peer and faculty feedback. Lastly, timed mock OSCEs mirrored graded encounters, with students rotating through roles as APN students, patients, and evaluators. A pretest/posttest design assessed mean OSCE scores, student preparation, and anxiety levels.

**Results:** Integration of the teaching tool led to a 7% increase ( $p < .001$ ) in mean OSCE scores, with an additional 2% improvement ( $p < .001$ ) post-workshop implementation. Student preparation markedly improved ( $p < .001$ ) while anxiety



levels decreased significantly ( $p = .045$ ). Conclusions: The implemented teaching strategies effectively bolstered students' clinical judgment, addressing identified gaps.

Significance: This adaptable model holds promise for nursing institutions seeking to enhance clinical judgment among their APN students, offering a pathway toward improved educational outcomes.

1097

## Addressing Barriers to Advanced Practice Nursing Roles

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Background: Advanced practice registered nurse (APRN) scope of practice issues and barriers to practice are relevant to APRN roles internationally. At the same time, addressing barriers to APRN practice remains challenging.

Objectives: The purpose of this session is to review common barriers to APRN practice and discuss strategies for addressing those barriers to ensure practice to the full extent of APRN license, training, education, and certification.

Methods or Approach: A review of the literature identifies that practicing APRNs report a number of barriers to practice including requirements for a collaborative practice agreement, requirements for chart reviews, payment of a collaborating physician fee, restricted hospital admitting privileges, restricted home health approval, physician co-signature of orders, and restricted health insurance credentialing, among others. Importantly institutional barriers exist even in full practice authority (FPA) states. These barriers can include outdated credentialing and privileging bylaws such as requirements for supervision of procedures within APRN scope of practice and orders for blood products requiring physician co-signature, among others.

Key learnings or results: APRNs can actively advocate for removal of barriers to practice to ensure practice based on their scope of practice. Useful strategies include advocating for ministry of health and APRN authority bodies to authorize a scope of practice that is based on education, training, licensure and county specific credentialing processes. APRN involvement with entities granting practice authority, reviewing practice bylaws for outdated/unnecessary restrictions, ensuring hiring practices based on APRN scope of practice, and garnering the support of key stakeholders can also help to reduce barriers to practice.

Conclusion: Addressing APRN barriers to practice remains an international priority. Reducing barriers to practice can enable APRNs to practice based on their scope of practice.

Significance: This session will address strategies for reducing barriers to APRN practice. Participant discussion time will enable sharing of additional specific strategies.

1618

## The NP Student Competency Assessment: Measuring Competencies in Nurse Practitioner Students

**Dr Christine Pintz<sup>1,2</sup>, Dr Carla Nye<sup>2</sup>**, Dr Marcy Ainslie<sup>2</sup>, Dr Mindi Anderson, Dr MaryBeth Bigley<sup>2</sup>, Dr Desiree A. Díaz, Dr Susan Kelly-Weeder<sup>1</sup>, Dr Shani Marks, Dr Christine Repsha, Dr Carolina D. Tennyson, Dr Qiuping (Pearl) Zhou<sup>1</sup>

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Background: Due to the increasing complexity of health care, the nurse practitioner (NP) workforce must extend its reach to meet healthcare care needs globally. NP faculty must ensure that students are competent to practice. However, the lack of reliable and valid instruments prevents this assessment.

Objectives: 1. Determine the reliability of the Nurse Practitioner Student Competency Assessment (NPSCA). 2. Determine the criterion validity for the NPSCA.

Methods: Faculty were recruited and trained to review student simulation videos recorded at their school. Two faculty members rated each student's video using the NPSCA and another common instrument. The faculty ratings were collected using an online survey program and stored on a secure encrypted server.

Results: Internal consistency  $\alpha=0.884$  (Rater 1) and  $\alpha=0.895$  (Rater 2). The correlation between rater one and rater two was  $r=0.390$ ,  $p=0.004$ . Inter-rater reliability ( $\kappa$ ) ranged from  $-0.180$ ,  $p=0.160$  (new item) to  $0.522$ ,  $p<0.001$  (valid item). The correlation between rater one NPSCA and VCU total score is  $0.288$ ,  $p=0.036$ , representing a moderate association. The correlation between rater two NPSCA and VCU total score is  $0.589$ ,  $p<0.001$ , representing a large association.

Conclusion: While establishing the construct validity of the NPSCA will continue, at this point, the NPSCA has acceptable reliability and validity, especially for formative assessment. Work will continue to study whether the NPSCA measures student progression, discriminates between different levels of students, assesses competence during clinical experiences, and to establish cut scores. The goal is to ensure that the NPSCA can be used for formative and summative assessments.

Significance: By assessing NP student competency at various levels during their educational program to ensure achievement of necessary clinical skills, more practice-ready NPs will be available to manage the healthcare problems of the future.



## 7.7 APN's Role in Shaping a Healthier, More Equitable World

1160

### Maternal-Newborn Workshop Utilizing Interactive Education Methods for Community Health Promoters in Rural Kenya

**Dr Farwa Mateen**<sup>1</sup>, **Dr Clarissa Berry**<sup>2</sup>, Dr Debra Kosko<sup>3</sup>, Dr Patti Harbman<sup>4</sup>, Prof Lisa Keenan-Lindsay<sup>5</sup>, Prof Kathryn Banks<sup>6</sup>, Abigael Osendi<sup>7</sup>, Dr Cindy Farley<sup>8</sup>

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**Background:** In rural western Kenya, community health promoters (CHPs) perform home visits during pregnancy and postpartum to provide health teaching and support as part of national efforts to address the rising maternal and infant morbidity and mortality rates. A collaboration between Georgetown University School of Nursing, Kenyan county health officials, and Canadian Nurses for Africa was established to address the declining health indicators through enhancing the education of CHPs. Objectives Increase CHPs knowledge about signs and symptoms of declining maternal health status during pregnancy and postpartum, as well as for newborns. Increase CHPs knowledge about indicators for referral to hospital.

**Methods:** A two-day CHP workshop with culturally responsive curriculum was created. Local health officials identified key content essential for CHPs to determine when a transfer to hospital should be made. Based upon evidence in the literature, the education methods chosen included interactive discussions, case scenarios, and small group work. A pre and post-test for each day of the workshop was developed. Two workshops were conducted in different regions. A total of 43 CHPs attended the two workshops. To measure sustained knowledge, the test was also administered to all participants one month after the workshop.

**Results:** Repeated measures ANOVA demonstrated a significant increase in knowledge from pre-test to post-test. The test scores one month after the workshop showed some retention of knowledge.

**Conclusion:** Interactive educational methodologies increased knowledge during a two-day workshop. However, selected areas of knowledge were not sustained. Therefore, frequent workshops for CHPs to build on knowledge gained are essential to address maternal and newborn health. Impact The success of this pilot project will inform revisions to workshop content and testing as more workshops are planned. Morbidity and mortality data will be monitored in an effort to demonstrate impact of this education model.



441

### Cultural Competence Training Impact on Diversity in Advanced Practice Nursing Teams: A Global Perspective

**Hongyan Zhou**<sup>1</sup>, **Liqin Yang**<sup>1</sup>, Jun Zhao<sup>1</sup>, Xu Lan<sup>1</sup>, Haitao Huang<sup>1</sup>, Jing Luo<sup>1</sup>, Yuejuan Zhang<sup>1</sup>, Yan Wu<sup>1</sup>

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**Background:** Cultural competence is increasingly recognized as a crucial element in contemporary healthcare, especially within advanced practice nursing teams. The presence of diversity and cultural sensitivity in advanced practice nursing teams is essential for providing high-quality healthcare. Given the growing diversity among patients and healthcare professionals, cultural competency training is emerging as a pivotal strategy to enhance the overall quality of healthcare delivery.

**Objectives:** This paper aims to evaluate the current status, trends, and methods of cultural competency training for advanced practice nursing teams, along with its tangible impact on team diversity. It seeks to offer a comprehensive understanding of how such training enhances diversity in global advanced practice nursing settings.

**Methods:** A systematic review was conducted to explore studies published between 2013 and 2023 in databases including PubMed, CINAHL, PsycINFO, and Google Scholar. Inclusion criteria involved assessing the impact of cultural competency training on advanced practice nursing teams and filtering for studies reporting quantifiable outcomes linked to enhanced diversity.

**Results:** The review revealed a positive link between cultural competency training and diversity within advanced practice nursing teams. Effective training methods, such as immersion experiences, simulations, and intercultural workshops, were identified. Moreover, enhanced cultural competence positively influenced teamwork, communication, and overall job satisfaction among nursing professionals.

**Conclusion:** Cultural competency training is a valuable strategy for fostering diversity in advanced practice nursing teams, emphasizing the need to integrate it into global nursing education and professional development programs.

Implications: This review enhances comprehension of how cultural competency training influences global diversity in advanced practice nursing teams. It holds significance for healthcare policy, education, and practice, urging the seamless integration of such training for inclusive and effective healthcare environments. As healthcare systems adapt to diverse patient needs, these insights guide the global enhancement of cultural competence in nursing practice.



913

### **Improving APN Student Competency in Caring for Transgender and Gender Diverse Populations**

**Dr Amanda Roesch<sup>1</sup>, Dr Veronica Quattrini<sup>1</sup>**

<sup>1</sup>University of Maryland School of Nursing, Baltimore, United States

Background: Globally, transgender and gender diverse (TGD) individuals face considerable health disparities: high rates of HIV and other sexually transmitted infections, mental health disorders, and substance use; and lower rates of preventive care such as cancer screenings. Lack of health care provider knowledge and comfort poses a significant barrier to accessing care for this population and contributes to these inequities. Education on the care of TGD populations is limited in advanced practice nursing (APN) curriculum. To achieve health equity and universal health coverage, it is imperative to adequately train APN students to provide culturally appropriate and affirming care to TGD individuals.

Objectives: The curriculum of an Advanced Health Assessment (AHA) course was revised to improve APN students' competence in caring for the TGD population. Approach: Curricular revisions included health history and sexual history tool updates, online learning modules on TGD health, and a formative simulation experience with a TGD standardized patient (SP). Students' comfort, skills, and attitudes were evaluated before and after the SP experience. Qualitative data were gathered from course evaluations and debriefs with faculty and SPs.

Results: Since 2022, 220 APN students have completed the AHA course after the revisions. There was a statistically significant increase in students' comfort and skills caring for TGD individuals after the simulation ( $p < .009$ ). There was no significant change in learners' attitudes, but baseline attitudes were positive. Feedback from students, faculty, and SPs has been overwhelmingly positive.

Conclusions: The success of this project highlights the importance of ensuring the foundational courses in APN education are inclusive of the TGD population. Subsequent courses should be revised to ensure APN students are adequately prepared to care for the TGD population.

Significance: This model can be used by other institutions to ensure APN students are competent in caring for the TGD population.



1268

### **Optimizing NP Panel Sizes: A multi-method approach considering patient complexity and operational supports in a BC Health Authority**

**Dr Laura Housden<sup>1</sup>, Michael Tantongco, Edrene Jiang**

<sup>1</sup>Fraser Health Authority; Nurse Practitioner Association of Canada, Canada

Background: The determination of appropriate panel sizes for Nurse Practitioners (NPs), accounting for patient complexity, remains a challenge. In Fraser Health Authority (FHA), NPs in primary care typically support complex patients whose needs have not been met via conventional primary care models. The FHA NP leadership team developed a process to that incorporates patient complexity and NP experience to determine appropriate panel sizes.

Objectives: The purpose of this presentation is to share the results of a project to identify appropriate NP panel size and practice supports. We provide an approach to examining NP panel sizes and discuss recommendations regarding implementation of the findings.

Methods: Over five years, FHA NP leadership developed a model to predict patient panel sizes based on patient complexity and NP experience. In 2023, a collaborative working group was established, bringing together NPs with diverse experiences, practice settings, and operational leadership. Utilizing a modified Delphi process, the group reached a consensus on appropriate supports for NPs in primary care, including operational workflows, and team-based care approaches. These recommendations were developed into an approach to reviewing and addressing panel sizes, and clinical and operational supports for NPs in primary care practices.

Results: These results were translated into a user-friendly panel size calculator currently to apply to NP practices, facilitating patient empanelment and operational support optimization, and the subsequent development of a step-wise approach to NP practice review and integration of the recommendations.

Significance: This work contributes to the understanding of NP panel sizes but also presents a toolkit to establish clear and reasonable expectations for NP panel size and an approach to integrating these recommendations into practice. The outcomes of this work have broad implications and offer a valuable approach for NP practice advancement in diverse healthcare environments.



## 8.1 Clinical Workshop & Multidisciplinary Oral Presentations

### Clinical Workshop

890

#### "APN Integrative Medicine" - External applications as part of a new role

**Sara Kohler**<sup>1</sup>, Barbara Gresch<sup>1</sup>, Bernadette Alig<sup>1</sup>

<sup>1</sup>Zurich University of Applied Sciences, Winterthur, Switzerland

**Background:** In Switzerland Complementary Methods (CM) have been included in the basic health insurance since 2009. The proportion of the population utilizing CM is steadily increasing (2002 16,4% -> 2017 28,9%) (BfS, 2019). APNs offer care consultations in various specialist areas, as the established therapeutic approaches are often not sufficient to alleviate the symptoms or the effects on everyday life. CM can make a potential contribution here. To meet these requirements, an APN role in integrative medicine must be implemented and further training opportunities created at the university level.

**Importance:** The APN role in Switzerland is still very young. A registration has only been possible since 2019. The establishment of specialised APN roles is therefore important for the professionalisation of nursing in Switzerland to demonstrate the benefit within healthcare institutions and for the population.

**Purpose:** Introduction to CM as a part of the establishment of a specialised APN Integrative Medicine role. Exchange with each other to benefit from each other's experiences.

**Learning objectives:**

- Theoretical Part: Participants will get a theoretical introduction to the most important external applications of CM, legal aspects, risks, evidence and possible fields of action.
- Practical Part I: This will include the demonstration usage and handling of external applications. Possible indications in each case will be pointed out.
- Practical Part II: Participants will have the possibility to practice one of the applications under the supervision of the expert.
- Discussion: Participants will be able to share their own experiences and ask questions.

**Achievements:** The attendee will learn about

- the possible impact CM can have to a beneficial outcome / soothing / healing,
- external applications to support the self-management of the patient.

**Knowledge/skills/tangible and takes:** The participants will know

- o the importance of safe, evidence-based CM,
- o the impact of CM,
- o how to apply the learned application.



### Oral Presentations

1114

#### **The Role of Advanced Practice Nurses in Preventing or Delaying Onset of Developing Alzheimer's Disease among Higher Risk Population through Practicing Health Promotion Acts**

Dr Khaldoun Aldiabat<sup>1</sup>, **Dr Kimberley Lamarche**<sup>1</sup>, Dr Enam Alsrayheen<sup>2</sup>, Lynn Levatte<sup>1</sup>, Samantha Hodder<sup>1</sup> Mohamad Musa<sup>1</sup>,

<sup>1</sup>Cape Breton University, Sydney, Canada, <sup>2</sup>Nova Scotia Health Department of Research, Innovation, and Discovery, Sydney, Canada

**Background:** Alzheimer's disease (AD) is a challenging health problem across the globe; however, there is a dearth of knowledge indicating how specifically Advanced Practice Nurses (APNs) contribute to promote health and prevent/delay AD for people at high risk during midlife or later life.

**Objectives:** This study aims to generate a substantive theory that explains the psychosocial process of health promotion and disease prevention acts provided by APNs to people at a higher risk of developing AD.

**Methods:** A constructive grounded theory approach is used to collect and analyze the data from interviews and field notes that will be collected from a purposive sample.

Key Learnings: This theory will afford knowledge and understanding about perspectives offered by APNs regarding how they construct the meaning and implementation of health promotion for the target population. Generation of a mid-range substantive theory, knowledge and understanding of the current health promotion and disease prevention practice implemented by APNs.

Significance: By implementing these programs, APNs not only control the prevalence of chronic diseases that play a role in developing AD, but also prevent or delay the onset of AD in later life.

Conclusion: This theory will provide evidence to support the knowledge and understanding about perspectives offered by APNs regarding how they construct the meaning and implementation of health promotion for the target population. This study's findings offer future researchers the ability to investigate the usefulness of using health promotion and disease prevention as a cost-effective, efficient strategy to prevent or delay the onset of new cases of AD. The findings can also be used by administrators and policymakers to focus on AD health promotion and disease prevention practices and provide the needed support and resources to APNs to implement their practice successfully.



714

### **Strengthening underserved communities, one patient at a time**

**Dr Heather Wade<sup>1</sup>**

<sup>1</sup>Saint Louis University, Saint Louis, MO, United States, <sup>2</sup>iFM Community Medicine, Saint Louis, MO, United States

Background: ANPs can offer personalized healthcare to underserved, impoverished, and rural communities by offering services in a space where the client has established camaraderie. This is especially important in disenfranchised communities or those that have difficulty accessing care. In a midwestern regional USA health system, this model has been successful for over a decade. This community health model can offer greater access to care across the globe as it strengthens underserved communities and improves access to care, one patient at a time.

Objectives:

1. Quality healthcare services are available and appropriately utilized.
2. Disparities in health outcomes are reduced.
3. Community agencies collaborate to improve health services.

Approach: ANPs have a unique role which allows them to offer primary care where patients are already located or housed. The ANP in this role can offer individualized acute and chronic care as well as community health promotion and education. Care in this model is built on relationships through partnerships formed with agencies such as shelters, schools, community centers, places of worship. This healthcare model lives its mission by taking services directly to points of need in a community, overcoming access barriers related to cost, transportation, language, and trust. The ANPs and agencies are often funded by government grants/national health service funding methods.

Key learnings: This foundation of relational care builds momentum by breaking down barriers to access care.

Conclusion: Providing care within community collaboration allows the ANP to reduce the typical barriers that the underserved client might face while trying to access primary health care services. Trust is also compounded because it is built upon a pre-standing relationship that the host agency already has with their clients.

Significance: In this midwestern American model in 2022, there were 30 clinical sites, 171 zipcodes served, 2462 vaccines given and 9198 patient visits.



## 8.2 World Café on Innovations & Multidisciplinary Oral Presentations

### Oral Presentations

852

#### Role of the NP/APN in Ending HIV by 2030

**Dr Debra Kosko<sup>1</sup>**

<sup>1</sup>Georgetown University, Washington, United States

Background: HIV remains a leading cause of death worldwide and the leading cause of death globally among women of reproductive age. Approximately 39 million people are living with HIV, and that is up from 31.5 million in 2010. However, the Joint United Nations Programme on HIV/AIDS has set the goal of ending HIV by 2030. What is the role of the global NP/APN in ending HIV by 2030?

Objectives:

1. Identify strategies used to decrease the number of persons with HIV.
2. Describe how the APN role can impact the goal of ending HIV/AIDS globally.

Approach: Key strategies to reach the 2030 goal are:

1. treatment as prevention or TasP,
2. Pre-exposure prophylaxis (PrEP),
3. HIV screening.

Key Learnings: Advancing the NP/APN role globally is critical if we want to realize the 2030 goal of ending HIV/AIDS. The NP/APN can consistently incorporate HIV screening into their practice as well as provide PrEP and antiviral treatment. NP/APNs can work to strengthen their role in the healthcare delivery system in regions and countries where there are barriers to their scope of practice. In the US there are nurse practitioner programs that provide a specialty in HIV/AIDS. There could be an expansion of these program in the US and globally.

Conclusion: Globally the role of NPs/APNs is critical if we are to realize the goal of ending HIV by 2030.

Impact/Reach: The NP/APN role is established in many high-income countries. Now is the time to collaborate with schools of nursing in low and middle-income countries to develop the NP/APN role that incorporates HIV/AIDS competencies in their curriculum.



1529

#### High satisfaction despite some unfulfilled expectations - What affiliates/relatives of multimorbid patients expect from APN care and what they experience

**Olivia Wöhrle<sup>1</sup>**, Joachim Klein<sup>1</sup>, Prof Dr Renate Stemmer<sup>1</sup>

<sup>1</sup>Catholic University of Applied Sciences Mainz, Mainz, Germany

Background: Since October 2021, for the first time in Germany, 9 APNs are employed in one General Practitioner (GP) practice each. As part of the research project 'Case-based care of multimorbid patients in general practices by advanced practice nurses', they provide individual care for multimorbid mostly geriatric patients in rural areas where the shortage of GPs is increasing sharply and impairing care.

Objectives: The aim of this study is to compare the expectations and experiences of affiliates/relatives of multimorbid patients who are cared for by an APN.

Methods:

Design: longitudinal study

Sample: affiliates/relatives of multimorbid patients t0: n = 157, t1: n = 129

Data collection: project specific questionnaires with clinical and social issues; handed out individually before (t0) and after (t1) 12 months of APN care with pseudonymized free return postage; time of data collection: from 10/2021 (t0; expectations before APN intervention) to 03/2023 (t1; experiences after APN intervention)

Data analysis: descriptive statistics; comparison between t0 and t1: t-test for paired samples

Results: Participants: n = 129; mean age t0: 60,7/t1: 62,8; gender (female/male): t0: 68,9 %/31,1 %, t1: 70,3 %/29,7 %  
Outcome: experiences (t1): 92,7 % are largely/very satisfied with APN care at all; 72 % have been helped largely/very well; 92,7 % would participate again; decline in expected improvement in patient's "incontinence" (p=0.026) (t-test)



Conclusion: The APN care met and exceeded the high expectations of multimorbid patients' affiliates/relatives. This leads overall to a very high level of satisfaction despite there is an unfulfilled expectation in one issue. This shows that the relatives' exaggerated expectations regarding the possible improvements in patients' highly complex disease situation met the realistically limited possibilities of influence of APN care.

Significance: The importance of APN care for affiliates/relatives of multimorbid patients is reflected in their high level of satisfaction despite some unfulfilled expectations.



## 8.3 Investing in the APN Health Workforce

622

### **Lessons learned in developing a nurse practitioner led model for chronic disease management within the community setting**

**Prof Deborah Kirk**<sup>1,2</sup>, Dr Nilufeur McKay<sup>2</sup>, Prof Lisa Whitehead<sup>2</sup>

<sup>1</sup>La Trobe University, Bundoora, Australia, <sup>2</sup>Edith Cowan University, Joondalup, Australia

**Background:** In the ever-evolving landscape of healthcare, advanced practice nurses (APNs) are increasingly becoming instrumental in the development of innovative models of care. One such model, the chronic disease model of care, aims to provide a comprehensive and patient-centered approach to managing long-term health conditions. This model accounts for the complex nature of chronic diseases such as diabetes, cardiovascular and cancer and aims to improve patient outcomes by incorporating prevention and diverse healthcare professionals with an emphasis on patient-centered care.

**Objective:** This team of APNs developed and implemented an innovative chronic disease survivorship model of care in a community setting exploring the responsibilities, challenges, and the different innovative methods we could adopt into a framework.

**Methods:** We developed a Nurse Practitioner led model that was patient centered and cost-effective focusing on improving health outcomes, keeping people healthy, and out of the hospital within their communities. We worked within our team to navigate the complexities of starting a healthcare provider service including regulatory and administrative processes, legal and registration, licensing, funding and finances, location and facilities, staffing, health information management, technology and equipment, marketing, and data capture.

**Key Learning/Results:** The team developed and implemented a new NP led model for chronic disease survivorship within the community focusing on cancer and cardiovascular disease management and prevention. With the implementation, we learned some valuable lessons and limitations that we would like to share. These lessons emphasize the importance of collaboration, planning for resource allocation, adherence to timelines and planning for the unexpected such as COVID.

**Conclusions/Significance:** In developing and implementing our innovative model of care, collaboration stood out as an important factor in success. Our experience highlights the need for involving people from all areas during every step of the process, the importance to sticking with timelines, and being adaptable for the unexpected.



797

### **Nurse Practitioner Locum Solutions: Enhancing Australian Rural and Remote Healthcare**

**Dr Natasha Jennings**<sup>1,3</sup>, Prof Kathleen Tori<sup>1,2</sup>

<sup>1</sup>Nurse Practitioner Locum Solutions, Little River, Australia, <sup>2</sup>La Trobe University, Bundoora, Melbourne, Australia, <sup>3</sup>Alfred Health, Melbourne, Australia

**Background:** Rural communities face unique challenges in accessing quality healthcare, necessitating strategic planning. With many small towns relying on visiting medical officers for healthcare services Nurse Practitioners (NPs) are well-positioned, appropriately qualified, and clinically experienced to play a pivotal role in addressing the needs of isolated communities that might otherwise go unmet. An innovative Nurse Practitioner (NP) locum service, implemented in Victoria, Australia addresses these gaps by offering high-quality healthcare provision for smaller health facilities. With over 100 contracted NPs health care delivery is provided to over 10 facilities in a variety of models: on-call, onsite, and via telehealth.

**Objectives:** This presentation will highlight the significant contribution that NP-led healthcare can make for isolated and underserved Australian communities

**Methods:**

Using digital storytelling, a multimedia narrative depicting the evolution of the NP model of care will be constructed. Sharing the journey with delegates we will tell the story of how NPs have been able to re-envisage healthcare for rural Australian communities.

**Results:** The NP Locum service is surpassing all stakeholder expectations. The flexibility of the model of NP-led healthcare delivery has adapted to embrace alternate modes of healthcare delivery which is proving invaluable to consumers.

Conclusion: By harnessing the potential of NPs, the rural healthcare crises can be addressed more effectively. Implementation of the NP model has proven to be a seamless model of healthcare delivery, clinically and financially sustainable, for smaller health services. Furthermore, the NPLS model offers the advantage of a relatively stable workforce, contrasting with the diminishing healthcare professionals as the rurality of health services increases.

Significance: Healthcare services that have embraced this innovative model have found that patient outcomes have been improved, service is cost-effective and reliable, and staff are better supported in times of emergencies. The model is replicable for other small Australian rural facilities.



1257

### A Pediatric Nurse Practitioner Framework for Career Progression

**Dr Mike Maymi**<sup>1,2</sup>, **Dr Amanda Vickers**<sup>1</sup>, Dr Sheri Sesay-Tuffour<sup>1</sup>

<sup>1</sup>Pediatric Nursing Certification Board (PNCB), Rockville, United States, <sup>2</sup>University of Florida, Gainesville, United States

Background: Healthcare organizations demand care to be safe, evidence-based, and cost-effective. Pediatric Nurse Practitioners (PNP) are essential in meeting these demands for child health. PNPs must develop and apply role-based competencies to practice at the full extent of their license. However, a framework did not exist to benchmark PNP competency development.

Objectives: This study describes a landmark framework for PNP professional competency development.

Methods: In 2022, the Pediatric Nursing Certification Board (PNCB) invited U.S.-based PNPs to develop a competency framework for practicing PNPs. Volunteers represented diverse PNP roles, backgrounds, and years of experience. Through consensus-building, seven role-based competencies emerged: Clinician, Collaborator, Advocate, Educator, Scholar, Leader, and Innovator. Definitions, proficiency levels, exemplars, and behavioral indicators were identified. Focus groups refined the framework. A Delphi study conducted with 2,000 Primary Care and Acute Care PNPs validated the framework.

Results: The survey was sent to 23,549 PNPs. The response rate was 7.4%.

Conclusion: The framework establishes clear benchmarks for PNPs to self-assess and progress in their careers. Educators and employers can also benefit.

Significance: Incorporating these competencies into PNP orientation, job descriptions, evaluations, and certification renewal could increase quality, reliability, and consistency in PNP practice and reduce organizational expenses. Additional research is needed to develop valid and reliable tools to assess these competencies and link them to patient outcomes.



1397

### Nurse Practitioners: Making a difference to patient outcomes in Rural and Remote Australia

**Carl Livingstone**<sup>1</sup>, Prof Kathleen Tori

<sup>1</sup>Goulburn Valley Health/Nurse Practitioner Locum Solutions, Shepparton, Australia

Background: Rural and remote communities across Australia face significant disparity in accessing quality health care compared to their Metropolitan counterparts. General Practitioners (GP) in many small towns are either burnt out or there is an over-reliance on visiting medical officers who do not know the town, the people, or local processes. Consequently, many rural patients often travel significant distances to access health care. Many towns have Urgent Care Centers, often led by GPs lead or nurses with telehealth support. Nurse Practitioners, with their appropriate qualifications and experience, can play a pivotal role in addressing these gaps, caring for the unique healthcare needs of the community. Nurse Practitioners, empowered to work to the top of their scope of practice, can deliver sustainable health and high-quality healthcare to these communities.

Objectives: This presentation will highlight the importance of Nurse Practitioner models of care in addressing the healthcare challenges in rural and remote Australia.

Methods: The effectiveness of NPs models of care will be demonstrated using case study methodology that showcases the provision of NP-led care in rural and remote Australian communities.

Results: Implementation of NP models of care in rural and remote healthcare services has yielded positive outcomes, including improved patient outcomes, enhanced access to quality healthcare, and improved consumer satisfaction.

Conclusion: Embracing NP provision of healthcare in small health facilities has proven to be an effective strategy for delivering essential healthcare to rural communities. Nurse Practitioners were found to not only provide high-quality care to rural communities but also offer valuable clinical leadership within the healthcare organizations, benefiting both patients and staff.

Significance: Nurse Practitioner-led models of healthcare contribute significantly to improving patient outcomes, enhancing healthcare accessibility for rural and remote communities, and are proving to be a cost-effective addition to the rural healthcare team.



1401

### **Building Practice-Ready Nurse Practitioners: A Clinical Expert Model Approach**

**Dr Lori Martin-Plank<sup>1</sup>, Dr Tarnia Newton<sup>1</sup>**

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Background: Transitioning from a registered nurse to an advanced practice nurse presents a daunting challenge for nurse practitioner (NP) students. The shift involves acquiring new skills and knowledge and embracing the role of a clinician provider. Employers increasingly seek "practice-ready graduates," putting pressure on NP faculty to adequately prepare students for this transformation early in their education.

Objectives: This presentation aims to guide participants in designing and implementing scaffolded clinical expert assessments throughout the nurse practitioner program. The goal is to cultivate clinical expertise and instill confidence in students before graduation.

Method: Student-centered assessments, including the clinical expert café, reporting to preceptors, evidence-based clinical decision pathways, and clinical peer expert activities, are strategically incorporated into each clinical semester. These assessments contribute to a comprehensive student learning portfolio, a valuable asset for applying to advanced practice nursing positions post-graduation.

Key Learnings: Clinical expert assessments are practical tools for readying new NP graduates for practice. Faculty empowerment is evident in actively engaging students, shaping their future, and fostering professionalism and accountability in their roles as future clinician providers.

Conclusion: Implementing the clinical expert model successfully engages students, enhances their knowledge and skills, and instills confidence as they transition into advanced practice nurses.

Significance: This approach contributes significantly to the development of a "practice-ready" advanced practice nurse workforce, meeting the demands of contemporary healthcare settings. Participants will leave with actionable strategies to implement similar assessments in their programs, ultimately benefiting the broader nursing community.



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### **Primary care providers' views of introducing the Nurse Practitioners in primary health care in China: A qualitative study**

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Background: With the increasing healthcare demands of older adults with chronic diseases, access to primary health care (PHC) is a critical global issue. In many countries, a better solution would be the more effective use of nurse practitioners (NPs) providing PHC services, which have been proven to be innovative, sustainable models of PHC. In China, the NP role is still in its infancy.

Aim: This study aims to investigate the perceptions of primary care providers towards NPs and to explore the feasibility of introducing NPs in PHCs in China.

Methods: The study had a qualitative design, including 30 semi-structured interviews with 30 primary care providers from 4 community health service centers. The material was analyzed using thematic analysis.

Results: The findings are divided into five main themes (a) The current challenges in PHC services in China; (b) An inaccurate understanding of NP roles; (c) Ambivalent attitudes towards the introduction of NP roles; (d) Barriers to introducing NP roles; (e) A complex process of implementation of a new nursing role in a traditional PHC system.

Conclusions: The preparation for introducing the role requires extensive work influenced by many factors. The NP role should be vigorously promoted to enhance understanding of its role and eliminate concerns about the fear of being replaced. The development of the NP role requires decision-makers and leaders to take primary responsibility for its introduction by creating institutional policies and appropriate infrastructure facilitating the incorporation of NPs into PHC.

Significance: The introduction process should be suitable for the current situation in China and provide a reference for the development of NP in the future in China. Meanwhile, this study can support countries in the early phase of developing the nurse practitioner role by identifying best practices and pitfalls.

Keywords: Introduction, Nurse Practitioner, Primary health care, Qualitative content analysis



## 8.4 Multidisciplinary: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs & Investing in the APN Health Workforce

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### Adherence to best practice: Validating a care quality index for primary healthcare nurse practitioners

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**Background:** Several systematic reviews have shown that primary healthcare nurse practitioners (PHCNPs) deliver high-quality care to patients with chronic conditions because of their adherence to best practice guideline recommendations. However, there is a lack of validated instruments that measure PHCNP adherence to best practice guidelines.

**Objectives:** The study aimed to pilot-test a care quality index (CQI) to determine if indicators sensitive to PHCNP practice were available in patient health records.

**Approach:** A multi-step approach was used. An umbrella review (n=44) identified indicators sensitive to PHCNP practice. Indicators of best practice for health conditions (e.g., cardiovascular disease, anxiety/depression) found frequently in primary care were identified. The CQI was developed and included 10 patient characteristics and 12 best practice indicators. Extractions from patient health records (n=34) were conducted in the summer of 2023 covering a 12-month period. Indicator attainment was scored 1 and summed. Guideline adherence was calculated for each health condition. For patients with several conditions, total scores ranged from 6 to 11 depending on the number of conditions. Indicator attainment was estimated using percentages.

**Results:** Indicators sensitive to PHCNP practice were present in the patients' health records, making it possible to extract these data. The instrument captured high and low levels of adherence to best practice guidelines. Adherence to best practice ranged from 11%-83%. Following the pilot-test, four items were modified. An item was added at the start of each section to indicate Yes/no responses for the category to reduce the risk of missing data.

**Conclusion:** The CQI for chronic conditions found frequently in primary care can be used to measure indicators sensitive to PHCNP practice.

**Significance:** Additional studies are needed to clarify how PHCNPs contribute to care and what patient, provider and organizational factors contribute to outcomes of patients with chronic conditions in primary care.



1610

### Review of Emergency Advanced Practice Nursing in seven countries

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**Background:** The role of nurse practitioners in emergency care is rapidly evolving and expanding in the provision of care in unpredictable, emergent situations, as well as improving the delivery and access to health care globally for all populations. Although variations in advanced practice and educational preparation exists in many countries globally, the role of nurse practitioners in emergency care continues to expand and grow.

**Objectives:**

1. Compare and contrast nurse practitioner emergency care in seven countries.
2. Compare and contrast nurse practitioner educational preparation for emergency care in seven countries.
3. Compare and contrast nurse practitioner title protection and competencies in seven countries.

**Approach:** Nurse Practitioners in emergency care globally is compared with selected exemplars from emergency nurse practitioners, as well as a table to examine the similarities and differences in role/scope of practice, educational preparation, title protection, and competencies in seven countries.

**Key Learnings:** Nurse Practitioners in emergency care need to collaborate and share educational preparation, competencies, and practice variations to better define the role of the nurse practitioner in emergency care globally. In addition, title protection must occur. Only through role clarity, title protection, standardization of education and

competencies, can the nurse practitioner in emergency care specialty develop to address the emergency care needs of global populations.



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### **Actualizing Advanced Practice Nurses' Global Impact: Navigating Challenges and Optimizing Outcomes**

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Background: Advanced practice nurses (APNs) with enhanced skills are vital to address global healthcare issues and improve patient/population health outcomes. Advanced nursing education prepares APNs with clinical skills, but to meet global healthcare challenges competencies in digital literacy, policy/advocacy, and systems-based thinking are needed. Moreover, to fully realize their potential, APNs need an opportunity to apply advanced knowledge/competencies in the practice setting.

Objectives: Utilize the Actualized DNP Framework to understand variables that affect APN global outcomes/impact. Recognize that innovative APN roles guide the development of practice-based evidence that leads to desired outcomes.

Approach: The Actualized DNP Framework (Burson, et al., 2016; Conrad & Kesten, 2024) is used as a guide to understand the variables that affect APN outcomes/impact. The framework highlights the advanced nursing knowledge needed to execute innovative advanced-level roles, which guide the development of practice-based evidence, leading to desired outcomes/impact.

Key learnings: Today's global healthcare requires APN digital literacy to navigate/utilize digital technologies. Informatics competency facilitates efficient communication, and data management, and underscores the critical need for data metrics to capture outcomes.

Policy/advocacy competencies are essential for APNs to shape a global healthcare environment that values their contributions.

To fully understand the effectiveness of APNs systems-based thinking, and the impact and quantifiable value of APN care, it is imperative to "measure what matters" and embrace a broader perspective that encompasses quality and cost metrics.

Conclusion: This framework guides efforts to measure and advocate for APNs' contributions in delivering high-quality, cost-effective care. Specifically, expanded skills in digital literacy, policy/advocacy, and systems-based thinking with opportunities to practice these skills in partnership within the practice setting are essential to meet global healthcare needs.

Significance: Globally, APNs with expanded competencies can provide measurable evidence to policymakers and organization leaders to support APN formal recognition and practice opportunities to realize improved health outcomes.



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### **Evaluating transitional care for adolescents and young adults with chronic conditions: Insights from a Dutch university hospital**

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Background: In the Netherlands, the transition from paediatric to adult healthcare poses challenges for adolescents and young adults with chronic conditions. In 2022, a quality standard was published to address these challenges. This standard emphasizes the importance of transition coordinators, typically nurse practitioners, and recommends key interventions such as individual transition plans and warm handovers to ensure continuity of care from paediatric to adult services.

Objectives: To evaluate transitional care practices at a Dutch university hospital before implementing this new standard. Methods: Semi-structured interviews were conducted from December 2021 to February 2023 with 57 healthcare providers, including 20 nurse practitioners, across 28 specialties in both paediatric and adult care sectors. The focus was on preparation, transfer, post-transfer care, and collaboration.

Results: Transfers commonly occurred between ages 16 and 18. Adult care providers demonstrated lower awareness and implemented fewer transitional care interventions compared to paediatric counterparts. Among the specialties, 89% sent transfer referral letters, 86% encouraged independent youth consultations, and 60% facilitated warm handovers. Individual transition plans were utilized in 44% of paediatric departments, 39% of specialties had a transition pathway, and 36% had designated transition coordinators. Specialties with nurse practitioners as transition coordinators showed higher implementation of transitional care interventions. The quality of collaboration between paediatric and adult care varied, with a consensus on the need for improvement.

Conclusion: This study reveals significant variability in the implementation of transitional care practices. Among the evaluated specialties, 14% have fully implemented the recommended interventions, indicating substantial room for improvement. The study underscores the crucial role of nurse practitioners as transition coordinators in enhancing transitional care.

Significance: Considering that 14% of specialties have fully adopted the recommended interventions and 72% have partially implemented them, ensuring their universal adoption is essential for effective transitional care and improving health outcomes for this vulnerable population.



1602

### **Perceived impact of the integration of Advanced Practice Nurses on interprofessional team level in a Belgian university hospital: a mixed methods study**

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Background: Advanced Practice Nurses (APN) can have positive effects when integrated in interprofessional teams of healthcare professionals (HCP). Today, APN research mainly focuses on patient- and organizational-related impact outcomes. Few research is available on the impact of APN on team level.

Objectives: To investigate the impact of the integration of APN in a university hospital on the HCP-team.

Methods: A longitudinal (matched controlled) pre-post mixed methods study was set up. 21 semi-structured interviews and 22 focus groups with healthcare managers and HCP-teams collaborating with the APN in a pediatric, digestive surgery and gastroenterology setting were performed. Interviews were audiotaped and transcribed. A thematic analysis was performed with researcher triangulation. Validated questionnaires were completed by HCP at T0, T1 and T2: psychosocial conditions in the workplace (COPSOQ-III) and the perception of the Team Effectiveness questionnaire. Multi-level analysis was performed.

Results: Qualitative data indicated an impact of APN on nurses related to three aspects: resistance and potential erosion of their job, role ambiguity and ownership and expertise sharing. The impact for physicians related to APN acting as gatekeepers, more efficient workflows, reduced workload, enabling physicians to focus on more complex medical tasks, exchange of knowledge and skills by creating a mutually beneficial learning environment, risk of evading responsibilities by physicians. Some physicians in training felt threatened by the integration of NPs, especially when it came to potential shifts in their roles and the impact on their training. Quantitative analysis is ongoing. Results will be available at the conference.

Conclusion: The dual nature of APN-introduction became apparent, balancing between uplifting and potentially undermining other healthcare providers.

Significance: It is recommended to monitor the process of APN-integration on the HCP level. Research should also integrate HCP-team level outcomes as essential when evaluation the integration of APN in healthcare, besides patient- and organizational-related outcomes.





## The emerging APN workforce in Malawi: an analysis of roles and contributions

**Dr Natasha North**<sup>1</sup>, Associate Prof Minette Coetzee<sup>1</sup>, Prof Petra Brysiewicz<sup>2</sup>, Eugene Ayub<sup>2</sup>

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Background

In Malawi, the role of Advanced Practice Child Health Nurses (CHNs) is evolving amidst healthcare challenges. This study investigates their responsibilities, exploring the impact of their advanced practice in a resource-limited setting. It addresses the gap in understanding how CHNs contribute to healthcare in Malawi, a crucial aspect for investing in the APN workforce.

Objectives: The study aimed to:

1. Examine the roles and responsibilities of CHNs in Malawi.
2. Identify the challenges and opportunities in their practice.
3. Provide insights for strategic development of the APN workforce in similar settings.

Methods: Qualitative methods, including interviews and focus groups, were employed, involving over half of the CHN workforce in Malawi. The study sought to capture a comprehensive view of CHN's roles, challenges, and the unique contributions they make to the healthcare system.

Results: Three main themes emerged:

1. CHNs are pivotal in leading and developing new services.
2. They possess 'rare knowledge' which elevates care quality.
3. CHNs face role confusion and strain, highlighting a privilege and burden dynamic.

These findings underscore the advanced level at which CHNs operate, despite systemic challenges.

Conclusion: CHNs in Malawi play a critical role in healthcare delivery but encounter significant role strain and confusion. The study emphasizes the necessity for clear role management and sustainable professional development to bolster this vital emerging cadre. It highlights the transformative potential of CHNs in resource-limited settings and the importance of investing in their roles for improved healthcare outcomes.



## 8.5 Multidisciplinary: APN's Role in Shaping a Healthier, More Equitable World & Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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### Reimagining Pediatric Newcomer Mental Health Care

**Laura Callaghan**<sup>1</sup>

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Background: With increased numbers of newcomers arriving in Canada, there is a need for health programs, services, and professionals to design and implement care that is culturally responsive and accessible for newcomer populations. In pediatric mental health, care is often offered in spaces that are inaccessible, with models of care culturally incongruent, and by providers with little awareness of experiences in migration knowing how to provide care with cultural humility.

In this presentation the author will re-imagine a culturally responsive, accessible model of newcomer mental health care informed by findings from community-based engagement practices and clinical encounters with 65 newcomer clients, supported by current literature on the subject.

Method: This study draws on the clinical experiences of a Nurse Practitioner working in the field of newcomer mental health as she engages with recently settled clients. Models of community engagement, reflective practice, and evidence-based care will be used to analyze these experiences and findings.

Objectives:

- Increase awareness of the barriers that impede accessible and culturally congruent care for newcomer populations in mental health.
- Share a model/strategic plan for newcomer mental health.
- Share findings from the literature, clinical work and community engagement that led to the creation of newcomer mental health strategic plan.
- Inspire APN's to be curious as to the possibilities of what advocacy and change looks like in their care/practice areas.

Conclusion: APN's are positioned uniquely to engage in program development and clinical work that inspires change in systems that advocates for and holds accountable health institutions to practice stated core values of equity, diversity, inclusion and accessibility.

Significance: There is an opportunity for APN's to lead the way in program development, advocating for care institutions to provide culturally congruent, equitable and accessible healthcare to newcomer populations



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### Strategies to Enhance Diversity, Equity, and Inclusion Education for APNs

**Dr Andrea Renwanz Boyle**<sup>1</sup>

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Background: Educating nurses, especially APNs, to provide comprehensive and quality care can be enhanced through the addition of diversity, equity, and inclusion (DEI) content throughout nursing programs. Alignment of program curricula to the WHO Sustainable Development Goal for Inequality Reduction is additionally an essential component of DEI focused education. The incorporation of DEI strategies is critical in the educational development of APNs worldwide.

Objectives: Presentation objectives included a discussion of the development and implementation of a diversity working group within a university nursing department to facilitate DEI educational implementation that can be applicable to education for APNs on a global level.

Approach: The diversity working group identified strategies to embed core DEI principles throughout a nursing curriculum that can also be implemented in APN educational programs.

Key Learnings: The diversity working group used reflection and assessment to propose DEI content delivery improvement through curricular mapping, revised teaching learning strategies, and comprehensive programmatic evaluation.

Conclusion: Inclusion of DEI content in nursing education is viewed as significant in the education of nurses especially APNs. Strategies such as the creation of a nursing diversity working group can augment DEI educational efforts to meet the WHO Sustainable Development Goal (#10) addressing inequalities. Incorporation of DEI content importantly provides education for clinicians working to address inequalities on a world wide level.

Significance: Development and implementation of strategies such as a DEI working group are significant in the development of DEI focused education for APNs globally. APNs educated in programs focused on implementation of DEI content are better prepared to address and resolve inequities on a world wide level.



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### **Partnership for Well Baby Care-Providing access to infants who are not attached to a primary care provider**

**Dr Roger Pilon**<sup>1</sup>

<sup>1</sup>Queen's University, Kingston, Canada

Background: Queen's School of Nursing, in partnership with Kingston Community Health Centres (KCHC) and Kingston Frontenac Lennox and Addington (KFL&A) Public Health created a newborn and early childhood clinic in May of 2023. The program was initially funded for one year.

It is estimated that 20 babies a month are born in our area who are not attached to a primary care provider. Newborn infants and their mothers in the Kingston area who are unattached to a primary care provider were offered access to this clinic.

Objectives: The Partnership for Well Baby Care was created to provide well-baby health care to infants who do not have access to a primary care provider and provide important interprofessional educational experiences for undergraduate nursing, nurse practitioner (NP), medical students, and post-graduate medical trainees in family medicine and pediatrics.

Approach: The clinic operates two half days per week and is staffed by primary care nurse practitioners (NP) from the School of Nursing and supported by Registered Nurses from KFL&A Public Health. The focus of the clinic is in providing wellness care, monitoring growth and development, milestone screening and delivering immunizations critical to early childhood health. If a child needs specialized care, the NP can make referrals to a pediatrician or other specialists.

Results: This initiative has been a huge success. This initiative has also benefited the larger health care system by providing essential wellness health care to infants, resulting in fewer visits to local walk-in clinics and emergency departments.

Conclusion: A program evaluation was carried out and a proposal to extend the funding was submitted. This presentation will provide an overview of the creation of the clinic and present the outcomes.

Significance: Our experience can provide guidance on how to develop and evaluate a well baby clinic.



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### **The PARC Project (Positive Advanced Recovery Connections)**

**Ann Cunningham**<sup>1</sup>

<sup>1</sup>Health Service Executive, bray, Ireland

Background: The PARC Project (Positive Advanced Recovery Connections) was a business case for advanced practice to integrate the primary and secondary services to increase access to the mental health services.

Objectives: Mental Health Registered Advanced Nurse Practitioner (RANP) specialist clinics are accessed by General Practitioner (GP) referral only. The consultant psychiatrist also diverts referrals to the RANP that are not suggestive of a severe and enduring mental health diagnosis. The RANP clinics provide full episodes of care and are supported by consultant psychiatry via clinical supervision & governance, Mental Health Nursing (MHN) via access to psychosocial interventions and the Community Mental Health Team (CMHT) via expert case consultation where required. The RANP clinics allow the consultant psychiatrists to discharge patients who do not have a severe and enduring mental health diagnosis to primary care and they can access interventions through PARC from there.

Methods:

- Review numbers accessing RANP care via GP referrals
- Review waiting times
- CORE OM - measure psychological distress
- Thematic Analysis on qualitative feedback
- Review mild to moderate caseload in secondary care
- Review incidents

Key Learnings:

RANP Annual Case Numbers

2020-2021 = 142

2021-2022 = 218

2022-2023 = 286

Total = 646

Diverted to secondary care as outside RANP scope =56

Key Performance Indicators:

1. GP Referrals = 83% increase in direct GP referrals to RANP
2. Waiting Times = 8 days
3. Quantitative Outcomes: CORE OM = Statistically significant improvement
4. Qualitative Outcomes: Positive, no complaints and 100% recommended
5. Reduction of mild to moderate diagnosis in secondary care - 50% to 23%
6. No incidents over 3 years

Conclusion: The PARC Project and ANP full episodes of care has allowed the RANP to work on the recommended shared care approach with several agencies and has enhanced the access and quality of care provided to the patient.



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**Ethical and moral conflicts of Advanced Nursing Practice (ANP) master students in their clinical workspace**

**Karin Kaiser<sup>1</sup>, Doris Langegger<sup>1</sup>**

<sup>1</sup>Paracelsus Medical University, Salzburg, Austria

Background: In daily practice, healthcare professionals are confronted with ethical and moral conflicts. One core competency of Advanced Nursing Practice (ANP) in ethical and moral decision-making is to solve conflicts.

Objectives: To evaluate the perspectives of ethical and moral decision-making of Austrian ANP master students, perceived challenges anticipated by the students, and previous methods for resolving ethical and moral conflicts that have been employed within interprofessional teams.

Methods: The group (n=21) discussed their previous experiences of ethical and moral conflicts. The discourse included challenges and potential solutions to ethical and moral conflicts that were encountered in the clinical workspace. Following this initial discussion, students were then divided into speciality subsets “acute care” (n=9) and “chronic care” (n=12), in which case studies (including a short film clip) were introduced to potentiate further conversations surrounding ethical and moral conflicts. Knowledge maps and a memory protocol were utilised for data collection. Data analysis was performed through content analysis.

Results: The students highlighted courage as an essential factor to manage ethical and moral conflicts more effectively. The relevance of clinical guidelines and the existence of multiple perspectives were also highlighted as necessary. Traditional hierarchical structures within physicians without reflecting other healthcare professionals’ views, advocating for patient safety and incongruency between personal values are perceived as challenging. Potential solutions cited within these discussions were transparency in communication, the use of tools and respect for, and adherence to the patient’s needs and wishes. Students miss case discussions, the involvement of nursing staff in decision-making, and educational awareness regarding autonomy.

Conclusion: This process enabled the ANP students to reflect on ethical and moral conflicts and controversies within their own clinical practices.

Significance: The learning content strengthens the students’ awareness of clinical decision-making strategies and guides and supports future clinical decision-making.



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**Nurse Practitioner roles and practice patterns in a community teaching hospital: A cross-sectional study**

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Background: Nurse Practitioners (NP’s) are employed in hospitals across Ontario, Canada, including community hospitals. NP’s play an important role in the delivery of healthcare, however, little is known about their daily practice patterns and how each NP enacts their role as compared to the Canadian Nurse Practitioner Core Competency Framework (2010).

Objective: The aim of this study was to examine the activities that NP's working at a community hospital engage in, across a variety of practice settings.

Method: This cross-sectional study included a convenience sample of NPs. Following Research Ethics Board approval, participants were approached via email and sent a web-based consent and questionnaire. An established and reliable tool, designed to measure practice patterns among Acute Care NPs was used (Rosenfeld et al., 2003; Bailey et al., 2021). Additional questions were asked regarding re-deployment during the COVID-19 pandemic.

Results: A total of 11 NPs consented and provided information regarding their daily practice activities. Respondents were a mean age of 45.1 years old and practiced as an NP for a mean of 8.7 years. The majority of respondents' time was spent completing direct clinical care, and the least amount of time was spent in research, education, leadership or precepting students. NPs were found to be practising withing the Core Competency Framework.

Conclusion: Given the changing landscape of healthcare, this information can assist with realigning NP work to ensure NPs are practicing to their full scope, meeting the organizational pressures, and patient/family needs.

Significance: Understanding current demographics, education and integration of NPs across organizational settings will assist in addressing gaps in full scope integration and opportunities for addressing the right care by the right professional at the right time as well as workforce planning given the current healthcare landscape.



## 8.6 APN's Role in Shaping a Healthier, More Equitable World

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### Supporting transgender men and non-binary people with chestfeeding and lactation: The role of the APN

**Dr Erin Ziegler**<sup>1</sup>, Dr Barbara Chyzy<sup>1</sup>, Dr Karen Campbell<sup>2</sup>, Dr Erin Kuri<sup>3</sup>, Research Assistant Joon Lee<sup>1</sup>

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**Background:** Transgender men and nonbinary people often encounter barriers when accessing supports for chestfeeding and lactation following the birth of their baby. Several factors have been identified as barriers, with the main factor being engagement with practitioners not providing gender-affirming care. Despite these barriers, engaging with transmen and nonbinary people in supportive environments facilitates chestfeeding.

**Objectives:** To explore the experiences of transmen and nonbinary people with chestfeeding to identify care recommendations for practitioners.

**Methods:** This qualitative descriptive study used semi-structured interviews with transmen and nonbinary people and practitioners to answer the research question.

**Results:** Thirteen people participated in this study, including eight transmen/nonbinary people and five practitioners. Themes identified were classified as barriers or facilitators to chestfeeding and lactating. Recommendations for practitioners were identified and included developing strong relationships, understanding the unique needs of the clients while using a trauma-informed approach, using gender-affirming language, reflecting on your own personal beliefs, assumptions and biases and being willing to learn.

**Conclusions:** Historically transmen and nonbinary people have struggled to find support for chestfeed and lactation, experiencing barriers in care. Results from this study can guide and support APNs to support these clients and remove these barriers to care, improving health outcomes for the client and baby.

**Significance:** The results of this study can help APNs increase their understanding and awareness of the needs of transgender men and nonbinary people with accessing support for chestfeeding and lactation. Improving access to supports can significantly improve outcomes in this vulnerable population.



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### Unveiling the Added Value of Primary Healthcare Nurse Practitioners for People in Vulnerable Situations

**Isabelle Savard**<sup>1,2</sup>, Dr Kelley Kilpatrick<sup>1,3</sup>

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**Background:** Primary healthcare nurse practitioners (PHCNPs), with their focus on holistic care and advanced nursing skills, address the health needs of individuals in vulnerable situations for whom health inequities persist. However, what constitutes the added value of PHCNP for people in vulnerable situations is poorly understood.

**Objectives:** To explore stakeholder perceptions of the added value of PHCNPs in providing care to people in vulnerable situations and identify individual and organizational characteristics shaping these perceptions.

**Methods:** A descriptive multiple-case study was conducted in Quebec, Canada, on a pilot site and two main clinical settings (cases) where PHCNPs provide care to refugees and asylum seekers. Data collection included document reviews, non-participant observations (n=46 hours), and semi-structured interviews (patients: n=22, clinical staff: n=20, and decision-makers: n=8). Thematic analysis based on a proposed conceptual framework focussing on the added value of nurse practitioners is ongoing. Intra-case analysis and inter-case comparisons will be completed.

**Results:** Preliminary study findings will be highlighted. The presentation will include the perspectives of patients, clinical staff, and decision-makers, shedding light on the nuanced aspects that contribute to the perceived value of PHCNPs.

**Conclusion:** This research will provide novel insights into the added value of PHCNPs and determine how PHCNPs can contribute to global health equity while clarifying the added value of PHCNPs providing care to people in vulnerable situations.

**Significance:** The development of a conceptual framework focusing on the added value of nurse practitioners will help to better understand this concept. Moreover, by elucidating the distinctive contributions of PHCNPs in caring for

vulnerable populations, the findings will help guide and shape the direction of advanced nursing practice, research, and policy initiatives.

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### **Case management and care expertise as a prevention approach for adults with intellectual disabilities (FaPP-MgB) - results of a randomised-controlled trial**

**Annika Gröndahl**<sup>1</sup>, Dr Stephan Nadolny<sup>1,2</sup>, Marie Grunwald<sup>1</sup>, Sarah Palmdorf<sup>1,3</sup>, Karina Ilkens<sup>1</sup>, Tessa Schulkorf<sup>1</sup>, Nina Borchardt<sup>1</sup>, Anne-Dörte Latteck<sup>1</sup>

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**Background:** People with intellectual disabilities (PWID) have a higher risk of several chronic diseases, and face several barriers to accessing health care. They are less likely to receive health promotion and prevention interventions. This study aims to address this issue through the implementation of prevention-focused case management by advanced practice nurses (APNs).

**Objectives:** The goal of this study was to improve the participants' health status, resilience and health-related quality of life.

**Methods:** We conducted a randomised-controlled trial with waiting list design. Inclusion criteria were ICD diagnosis F70-79 and age ≥18 years. Exclusion criteria were a level of care >3 (according to the German Social Code XI) or being at the end-of-life. Participants lived in inpatient and community settings. The intervention focused on four prevention domains (mobility, nutrition, stress, addiction) and consisted of 1) social space analysis, 2) four outreach visits by eight APNs over one year including assessment of the participant's health needs, joint development of a prevention plan, case management, evaluation of the plan's implementation, and 3) individual or group counselling. The control group received usual care. The primary outcome was health status at 12 months (WHODAS 2.0). Secondary outcomes were health status at 6 months, resilience (RS-11) and quality of life (EQ5D-VAS) at 6 and 12 months. We analysed data using ANCOVAs.

**Results:** 214 people were included in the study, 107 in each group. Data are currently being analysed and results will be presented at the conference.

**Conclusion:** The study is expected to improve health outcomes and, as an overarching goal, social participation by reducing barriers to prevention and health promotion for PWID.

**Significance (Impact and Reach):** This is the first study on prevention for PWID using APNs in Germany. Depending on the results, the intervention may become standard service funded by health insurance in the future.

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### **Engaging with Planetary Health will Shape Advanced Practice Nurses' to Deliver a Healthier, more Equitable and Sustainable World for All**

**Prof Jean Ross**<sup>1</sup>, Academic Jo Speirs<sup>1</sup>

<sup>1</sup>Otago Polytechnic, Dunedin, New Zealand

**Background:** Nurses are ideally placed to contribute to, and help direct, the health response to climate change and sustainability. We recognise that sustainability is closely related to climate change which is the greatest threat to planetary, human and animal health. Never has there been a timelier reminder of nursing's responsibility to understand climate change and its impact on health. Advanced Practice nurses must help lead the profession ensuring sustainable practice is situated at the forefront of nursing practice, education and policy development.

**Objective:** Three objectives underpin this presentation. First, it is our intention to encourage debate amongst Advanced Practice nurses in shaping a healthier, more equitable and sustainable world. Second, we engage with Planetary Health to support Advanced Practice nurses' response to, and mitigation of, climate change. Third, we raise the challenge of examining the relationship between the nursing profession and Planetary Health.

**Approach:** We draw on the 12 principles of Planetary Health as a framing device, providing a model to clearly embed sustainability for Advanced Practice nurses to assist them in response to this complex global issue.

Key Learning: Advanced Practice nurses' engagement with the 12-Planetary Health principles will help counter the sustainability fatigue and ambivalence currently recognised by the profession. Nurses understanding of and engagement with sustainability and the health response to climate change will have the motivation to deliver a healthier more equitable sustainable world for all.

Conclusion: We anticipate this approach will form a basis for operationalising Planetary Health in nursing practice and as such will be of particular interest to practitioners, educators, and policy makers.

Significance/Reach: Applying the 12-Planetary Health principles in nursing practice will improve planet, human and non-human health, as well as increasing nurses' understanding and engagement of sustainability.



1053

### **Advanced Nursing Practice for people with learning disabilities in Germany**

**Annika Gröndahl<sup>1</sup>**, Dr Dirk Bruland<sup>1</sup>, Christian Grebe<sup>1</sup>, Dr Änne-Dörte Latteck<sup>1</sup>  
<sup>1</sup>Hochschule Bielefeld - University of Applied Sciences and Arts, Bielefeld, Germany

Background: In Germany, people with learning disabilities (PLD) are currently underserved in terms of healthcare, and the goals of the UN Convention on the Rights of Persons with Disabilities are not fully met. Internationally, Advanced Practice Nurses (APNs) have been successful in improving care for this population, but they have not yet been established in Germany.

Objectives: The aim of this study was to determine the need for APNs among PLD in Germany and explore potential priorities for their work. Specifically, the study aimed to identify the individuals and typically complex circumstances that require the services of APNs, to create starting points for the development of Advanced Nursing Practice in this area. Methods: A scoping review was conducted, followed by a qualitative exploratory study using 14 expert interviews with nursing scientists and clinicians. The analysis was based on qualitative content analysis.

Results: There are numerous problems in the care of PLD. Factors such as multiple disabilities, comorbidities, high care needs, and individual living and care conditions can result in complex care situations. However, complexity often only arises when a person interacts with the healthcare system. Based on the results it is suggested that an APN should be involved in the care of PLD in cases of newly developed symptoms, acute illnesses, deteriorating health, increasing care requirements, or transition to another care setting.

Conclusion: There are several indications of a need for APNs for PLD, but further research is required to determine the exact factors that indicate this need. This study represents a first approximation.

Significance (Impact and Reach): This is the first study, conducted as part of a master's thesis, to explore the need for APNs in the care of PLD in Germany, provide reasons for their implementation, and propose priorities for the shaping of this new nursing role.



1157

### **The advanced practice nurse role in providing inclusive care in Gender diversity**

**Toni slotnes-obrien<sup>1</sup>**  
<sup>1</sup>University of South Australia, Adelaide, Australia, <sup>2</sup>University of South Australia City West Health Clinic, Adelaide, <sup>3</sup>Australian College of Nurse Practitioners,

Transgender and gender diverse Australians are arguably among the most marginalised and socioeconomically disadvantaged groups in our community.

The first peer reviewed study into the health of transgender individuals revealed alarming statistics: 73% of participants experienced depression, 63% self-harm and up to 43% had attempted suicide.

Widespread discrimination and physical assault have led to a mistrust and fear of discrimination with many transgender and gender diverse individuals avoiding any necessary medical healthcare.

Nurse Practitioner led clinic's emphasise an individualised and patient-centred approach to care, in line with the World Professional Association for Transgender Health (WPATH) Standards of Care. The clinic aims to address the physical, mental, and social needs of the individual seeking care.



There are limited gender affirming services available to the transgender and gender diverse community. NP clinics are inclusive and interprofessional model of care for gender diverse and transgender individuals. It is an essential step towards providing appropriate, accessible, acceptable care to this community.

The goals of these services are to improve mental health, lower suicide rates and provide best practice gender-affirming care and coordination of care to enable trans and gender diverse people to live a life without barriers.

WPATH guidelines use the informed consent model; and are key learning points. A multidisciplinary approach is required to enhance continuity of care particularly due to limitations placed on the Nurse Practitioner role.

The resulting benefits and limitations of a NP led clinic for trans, and gender diverse people will be presented with recommendations to improve primary health care services delivered by Nurse Practitioners.



## 8.7 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### Global Health Concepts in APN Curriculum: To Reach UN SDG the Time is Now

**Dr Karen Moore<sup>1,2</sup>, Dr Heather Wade<sup>2</sup>**

<sup>1</sup>ICN NP/APNN, United States, <sup>2</sup>Saint Louis University, St. Louis, USA

Background: Global interconnectedness was illustrated for us all during the COVID-19 pandemic. The UN Sustainable Development Goals (SDGs) lay out the path to a healthier world. APNs need to understand the ways that healthcare in other countries is delivered which can provide insight into ways that population health for their individual community can be improved.

Objectives:

Discuss:

1. The ways global health can be integrated into APN curriculum
2. Exemplars of bidirectional global partnerships.
3. Crosswalks for population and global health content.

Methods/Approach: APNs should have a robust understanding of global healthcare delivery models to provide the highest level of care for their patients. Technology allows the opportunity to connect with colleagues around the world to share care delivery concepts across diverse locations. Global partnerships can result in directional clinical immersion opportunities. By connecting local community concepts to global health concepts, APNs will be provided cultural insight and creative care delivery models.

Key learnings or results:

Following this presentation participants will be able to:

1. Describe foundations of global educational partnerships.
2. Discuss how to incorporate key global health concepts into APN curriculum.
3. Define crosswalks of local population health goals, UN SDGs, and global health content.

Conclusion: Including global content into APN education and team teaching across continents will allow for greater understanding of the global landscape and shared approaches to reaching UN SDGs. This innovative powerful APN workforce can leverage their collective power to advance achievement of the UN SDGs.

Significance (Impact and Reach): The significance of global partnerships and incorporating global health concepts into APN curriculum cannot be overstated. This shift to seeing healthcare in the broadest global context provides avenues for solving health issues and achieving the UN SDGs when all APNs worldwide are united in their understanding and efforts.



1611

### Advanced nursing practice in the European Union

**Sara Morin Galfout<sup>1</sup>**, M. Sébastien Colson, M. Jocelyn Schwingrouber

<sup>1</sup>Aix Marseille Université, Marseille, France, <sup>2</sup>Aix Marseille Université, Marseille, France, <sup>3</sup>Aix Marseille Université, Marseille, France

Background: Advanced practice nursing is a fast-growing profession within the European Union. In response to common health issues, the European Parliament has enabled the recognition and practice of healthcare professionals such as nurses in member countries. Although the International Council on Nursing has provided us with a consensual definition of advanced practice, it is undeniable that its implementation differs from one country to another, particularly in Europe. This scoping review highlights the similarities and differences between advanced practice nursing in EU member states.

Objectives: The aim of this scoping review is to take stock of the advanced practice nursing profession in the member countries of the European Union.

Method: This scoping review was conducted in accordance with JBI recommendations. The search was carried out on 6 databases, on various European and national government sites, on the sites of professional nursing orders. There were no language restrictions. Review, literature selection and data extraction were carried out independently by two reviewers.

Results: Initial results show that there are a number of similarities in the advanced practice nursing profession across the European Union in terms of level of education, clinical skills, practice modalities and location of practice. On the

other hand, recognition of the title and regulation of the profession, as well as the clinical specialties developed, are more disparate. Some countries have not yet developed advanced nursing practice

Conclusion: The European Union and its member countries face the same public health challenges: caring for more people, for longer. The development of advanced nursing practice is one response that has proved effective in various member countries. It would be interesting to consider the recognition of this profession on a European scale, as is currently the case for the nursing profession.

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### **Advanced Nursing Practice and Interdisciplinary Collaboration among Patients with Sarcoma in Switzerland**

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Sarcoma represent less than 1% of malignant tumor diseases, comprising over 100 subtypes. Due to their rarity and non-organ specific manifestation, diagnosis, treatment and follow up care are complex and challenging. This requires a specialized, interprofessional and interdisciplinary healthcare team, which challenges effective collaboration. In the German-speaking part of Switzerland, two university hospitals have established sarcoma centers offering Advanced Practice Nurse (APN) services, to better address patients multiple needs and of their relatives. However, there has been no reflection on the impact of APNs on collaboration within and between sarcoma centers.

This presentation aims to reflect and compare collaboration within and between two Swiss sarcoma centers. It focuses on practice development along the patient pathway from the perspective of APNs.

The practice development methodology (McCormack, 2013) was utilized to facilitate role reflection and identify interfaces within the interdisciplinary teams.

Role reflection indicated that the APNs in both sarcoma centers proactively engaged with their interdisciplinary teams and implemented changes in the patient pathway to improve care coordination. They shared information about their patients' values, beliefs, and needs with their interdisciplinary teams and organized round table discussions when necessary.

Ongoing collaboration between the APNs and sharing of their experiences facilitated improvements in clinical practice (e.g. individualized information folders for patients or adjustments in the follow-up care).

Both sarcoma centers participated in a pilot study that explored the potential of "Electronic Patient-Reported Outcome Measures (ePROMS)." Thus, at one university hospital, ePROMS are collected throughout the patient pathway, evaluated by the APN and discussed with the interdisciplinary team.

We conclude that interdisciplinary collaboration and continuous exchange with APNs within as well as between centers facilitate practice development and person-centred care.

The experience to date has emphasized the crucial role of APNs as an integral part of the interdisciplinary team in Swiss sarcoma centers.

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### **Making Matches: A Collaboration between an Academic Health Center and a Nursing Program to Improve APN Student Precepted Practicum Placements**

**Dr Mary Dirks<sup>1</sup>, Dr Maria Lofgren<sup>1</sup>**

<sup>1</sup>The University of Iowa College of Nursing, Iowa City, United States

Background: Academic health centers are faced with limited resources to navigate placement of Advanced Practice Nurse (APN) students at the same time as APN programs continue to grow globally in number. In addition, clinical practicum sites are in higher demand due to increased clinical hour requirements by accrediting and organizational bodies.

Objectives:

Optimize efficiency and effectiveness of the APN student practicum placement process

Increase the number of interested and willing APN preceptors

Improve APN healthcare center workforce needs

Methods: APNs within the collaborative healthcare center are surveyed three times a year to assess their interest in serving as an APN student preceptor. Data is collected about practice type, shifts, and availability of hours to precept.

The nursing college clinical coordinator collects information from faculty about clinical experiences and hours needed. A matching process is conducted via a collaborative committee to match students with preceptors.

Results: Because an exclusive partnership was made, duplicative administrative time previously needed to ensure compliances and intake clinical placements requests was eliminated. The academic institution has seen an increase in applications and an increase in preceptor availability. The preceptors have seen a relief from constant requests from students and programs unfamiliar to them. Graduates seek employment at sites of previous practicum experiences.

Conclusion: APN student placement is a complex process, requiring academic and clinical administrative ownership to ensure adequate and appropriate APN preparation while being sensitive to preceptors' workload and ability to meet productivity benchmarks and maintaining quality and safety of patient care.

Significance: Enhanced academic and clinical practice partnerships benefit all parties, from students, faculty, and preceptors, to administrators, and patients. Collaborative partnerships to effectively prepare APN students in a rewarding and efficient manner ensures long-term sustainability of quality outcomes.



1540

### **Developing a Master's Program: Advanced Nursing Practice in Critical & Intensive Care (ANP CIC) in Germany**

Melanie Große Westermann<sup>1</sup>, Prof. Dr Claudia Oetting-Roß<sup>1</sup>, [Nikoletta Dimitriadou Xanthopoulou](#)<sup>1</sup>, Prof Dr Christiane Knecht<sup>1</sup>

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Background: Advances in intensive care mean that more people are surviving critical and life-threatening conditions. The ageing population and associated multimorbidities may lead to a shift towards chronically critically ill patients, which may not only require a higher number of nursing staff, but changing qualitative requirements. While Advanced Practice Nurses (APN) gain more attention in Germany, there is currently no master's program addressing these requirements concerning the context of critical and intensive care (CIC).

Objective: To develop a master's program for APN CIC at FH Muenster University of Applied Sciences using a multi-perspective approach.

Method: Today, accreditation places high requirements on study programs. In addition to a scoping review, which focused on the scope of practice of APN CIC, a synopsis of APN study programs in German-speaking countries was conducted. A focus group involved CIC experts empirically in the evaluation of the study program, while the views of students were surveyed in a Summer of Science. Finally, results of these different approaches were considered for the development of the Master's program and discussed with the advisory board of the Muenster School of Health.

Results: Literature shows a lack of clarity regarding the main focus of APN CIC. The current state of research reveals the taking on tasks that were previously considered for another professional group. The nursing focus of APN is often described at an abstract level or is missing. The synopsis also revealed a lack of APN master's programs in Germany, especially in the context of CIC. According to experts, multidimensionality of patients in the field of CIC as well as phenomena and target groups should be more scientifically considered. For students, ability to study was relevant.

Conclusion and Significance: The developing process of the Master APN CIC was successful in conceptualizing the curriculum by integrating different perspectives.



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### **Development of an educational matrix for a mentoring program for oncology nurse navigators and advanced practice nurses in oncology: a co-design process**

[Dr Isabel Vlerick](#)<sup>1,2</sup>, Dr Laura Thomas<sup>3</sup>, Dr Lise-Marie Kinnaer<sup>1</sup>, Elsie Decoene<sup>2</sup>, Dr Annemarie Coolbrandt<sup>4</sup>, Prof Dr Ann Van Hecke<sup>1,2</sup>

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Background: Due to the complexity of cancer care, there is an increased need for expert nurses, such as oncology nurse navigators (ONNs) and advanced practice nurses (APNs). Although the added value of these expert nurses in interprofessional teams has been proven, barriers and facilitators related to their role integration in teams have been reported. No comprehensive overview is available on the components of mentoring programs on role integration to support the expert nurse, the interprofessional team, and the nurse/healthcare managers.

Objectives: To develop a mentoring program, concentrating on role integration in the interprofessional context for ONNs/APNs in oncology.

Methods: The mentoring program is based on (1) a qualitative needs assessment of ONNs and APNs, (2) qualitative interviews with nurse managers working with ONNs/APNs, and (3) a systematic review on the effectiveness and components of existing mentoring programs for ONNs/APNs. The program was developed in collaboration with experts in education and mentoring, expert nurses (ONNs/APNs), nurse managers, APN academics). An educational sciences expert was consulted to align didactic and learning methods for addressing the mentoring program's objectives. This program is currently being evaluated in a mixed methods study.

Results: Key themes based on the research and systematic review that shaped the mentoring program encompassed: professional development and role clarity, collaboration within interprofessional teams, setting priorities, leadership development, and aligning mutual expectations. Results from the mixed methods study will be available at the conference.

Conclusion: An evidence-based mentoring program was developed, consisting of detected needs of various stakeholders which are matched with evidence-based learning methods. It is expected that this will enhance empowerment of ONNs/APNs and their team.

Significance (Impact and Reach): The mentoring program can inspire organizations to facilitate implementation of ONNs/APNs in oncology and ensure that these expert nurses are empowered in performing their job in an interprofessional context.



## 9.1 Symposium: Advanced Practice Nursing Education: Using Competency Based Assessment to Enact the United Nations Sustainable Development Goals of Health, Well-being, Quality Education, and Equality

NPAPN24006

Convenor: Marcy Ainslie

University of New Hampshire and National Organization of Nurse Practitioner Faculties & University of New Hampshire

Purpose: To facilitate advanced practice nursing programs transitioning to competency-based assessment curricular models to align academic requirements with the United Nations Sustainable Development Goals of Health, Well-being, Quality education, and Equality.

Objective:

1. Participants will recognize the call to action to align health professions education with contemporary workplace needs.
2. Participants will identify the supporting tools, instruments, and constructs available to APN faculty that supports their work in curricular re-design to CBA.
3. Participants will observe how the Backward Design Framework is used to operationalize competency-based assessment through exemplars.

Rationale: Population health reporting by the World Health Organization, United Nations, and National Academies of Medicine (US) have called on the health professions to raise the bar on the quality of preparation of the healthcare workforce. The healthcare system has evolved faster than academia has adapted, resulting in a growing academic-practice gap and preventable adverse event rate. American Association of Colleges of Nursing's (AACN) The Essentials and the National Organization of Nurse Practitioners (NONPF) NP Role Core Competencies commits nursing to reimagine advanced practice nursing education through competency-based assessment (CBA). CBA aligns educational preparation with the needs of the health system. Theoretical frameworks informing this work include Miller's Pyramid of Clinical Competence (1990) and Wiggins and McTighe's (2005) Backward Design.

Summary: This learner-centered approach aligns APN education with international and national calls to action for quality APN education. This systematic approach, grounded in educational theory and best practice, provides APN faculty with a blueprint for CBA implementation.

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### Quality Education for the Advanced Practice Nurse: A Call to Action

Dr Marcy Ainslie<sup>1</sup>, Dr Mary Beth Bigley<sup>2</sup>, **Dr Shannon Idzik**<sup>3</sup>, Dr Tracey Chan<sup>4</sup>

<sup>1</sup>University of New Hampshire and National Organization of Nurse Practitioner Faculties. <sup>2</sup>National Organization of Nurse Practitioner Faculties, <sup>3</sup>University of Maryland; <sup>4</sup>Madonna University

Background: Research has quantified the impact of health disparities and inequities, as well as measured the preventable adverse event rates, in the healthcare system. International and national organizations have called on higher education to improve the quality of health professions education. This data and reporting pose a call to action for a paradigm shift in preparing advanced practice nurses to deliver safe, quality, high-value, person-centered care. This background outlines the moral and ethical responsibility for advanced practice nursing educators to require student demonstration of competency prior to graduation.

Objectives:

1. Participants will recognize the call to action to align health professions education with contemporary workplace needs.
2. Participants will respond with a sense of urgency for quality improvement in advanced practice nursing education.

Approach: Empiric literature and data sets are collated and reported out to facilitate understanding of why a change in advanced practice nursing education is needed. This presentation has been created to generate buy-in for change.

Key Learnings:

1. There is a growing academic practice gap as health systems evolve and change faster than educational institutions.
2. Preventable adverse events in the US health care system have been the 3rd leading cause of death since 2016, except for 2020 when it dropped to 4th due to the Covid-19 pandemic.

Conclusion: The World Health Organization, United Nations, and National Academies of Health (US) provide the data supporting the need for a curricular redesign in the education of advanced practice nursing. This data serves as a call to action for improving the quality of education for the health professions.

Significance: It is the professional, ethical, and moral responsibility of nursing education, regulators, legislatures, accreditors, and credentialing agencies to ensure the standards of the health professions education delivers providers prepared to deliver safe, quality care.

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## Applying Educational Theory in Curricular Design to Ensure Practice Ready Graduates

**Dr Marcy Ainslie**<sup>1</sup>, Dr Mary Beth Bigley<sup>2</sup>, Dr Shannon Idzik<sup>3</sup>, Dr Tracey Chan<sup>4</sup>

<sup>1</sup>University of New Hampshire and National Organization of Nurse Practitioner Faculties. <sup>2</sup>National Organization of Nurse Practitioner Faculties, <sup>3</sup>University of Maryland; <sup>4</sup>Madonna University

Background: Advanced practice nurse educators are primarily trained as expert clinicians. Many faculty have not had formal training in the practice of teaching, learning, assessment, and evaluation. Supporting the development of advanced practice nurses as educators can improve the competency of the graduates and improve health outcomes for the persons they serve.

Objectives:

1. Participants will gain foundational knowledge of educational theory and best practices of assessment to inform curricular design.
2. Participants will identify the supporting tools, instruments, and constructs available to APN faculty that supports their work in curricular re-design to a competency-based assessment model.

Approach: Provide a professional development opportunity for educators to enhance their understanding and implementation of competency-based assessment. Taxonomy and principles of this educational theory will be defined. Competency-based assessment models grounded in Miller's Pyramid of Clinical Competency will be explained. The Backward Design Framework will be applied to implement these theoretical principles. Discuss emerging trends and innovations in competency-based assessment.

Key Learnings:

1. Taxonomy and principles of Competency-based assessment.
2. Grounding a curricular re-design in Miller's Pyramid of Clinical Competence model.
3. Employing the Backward Design Framework for operationalizing this theoretical model.

Conclusion: This presentation is designed to demonstrate how educational preparation of health professions can be aligned to the knowledge, skills, and abilities needed for successful entry into the workplace. Educational preparation must keep pace with the changing complexity and diversity of the health system to deliver the goals outlined by the United Nations as they pertain to health.

Significance: Preparing advanced practice nurse clinicians as expert educators requires intentional and deliberate training opportunities. Investing in this professional development facilitates safe, equitable, and holistic delivery of health services.

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## Moving forward: A Roadmap for Competency-Based Assessment Curricular Re-design

**Dr Marcy Ainslie**<sup>1</sup>, Dr Mary Beth Bigley<sup>2</sup>, Dr Shannon Idzik<sup>3</sup>, Dr Tracey Chan<sup>4</sup>

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Background: While theoretical competency and goal statements serve as a mission and vision, implementation guidance is needed for faculty to operationalize these documents to produce deliverable results. The National Organization of Nurse Practitioner Faculties has developed a Competency Implementation Guide for Nurse Practitioner Faculty that will serve as a demonstration of competency-based curricular design. The principles and steps of this guide are generalizable to all advanced practice nursing educators.

Objectives:

1. Participants will observe how the Backward Design Framework is used to operationalize a competency based curricular re-design to make the theoretical National Organization of Nurse Practitioner Faculties Role Core Competencies document actionable.
2. Participants will identify actionable steps to advance the implementation of competency-based curriculum in their home institution.

Approach: Connect competency-based assessment to real-world applications. Provide visualization of a blueprint with actionable steps to transition advanced practice nursing curriculum to a competency-based model using the National Organization of Nurse Practitioner Faculties Competency Implementation Guide as an exemplar.

Key Learnings:

1. Collaborative partnerships in advanced practice nursing can facilitate operationalizing a competency-based curriculum.
2. The National Organization of Nurse Practitioner Faculties Competency Implementation Guide can serve as an exemplar for other advanced practice nursing organizations and health professions to improve the quality of education.

Conclusion: Examples will be presented to demonstrate the transition from theoretical competency statements to student demonstrations of competency.

Significance: Requiring student demonstrations of competency will ensure the realization of the United Nations Goals as they pertain to improving health, well-being, inequities, and inequalities in persons served by the healthcare system.





## 9.2 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### **An evaluation of trainee Advanced Nurse Practitioners experiences and perceptions of having a Clinical Practice Facilitator introduced into the Hospital at Night team**

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<sup>1</sup>University of Edinburgh, United Kingdom

Background: The role of the Advanced Nurse Practitioner (ANP) within Hospital at Night (H@N) teams has emerged in line with the demands of the service and the needs of patients in the out-of-hours period. The majority of ANPs with H@N teams are recruited as trainees in the first instance. This is particularly problematic for a number of reasons: the high volume of trainee's needing support against a low number of experienced ANPs; rotating medical colleagues meaning supervision is often ad-hoc and medical consultants working during the 'in hours' period. Introduction of the Clinical Practice Facilitator (CPF) role is one way of addressing the afore-mentioned issues. Within this evaluative study of one H@N service, CPFs are experienced ANPs who have received additional training in the delivery of practice assessment and learner feedback.

Aim: To explore the experiences and perceptions of those who have had or are currently receiving support and supervision from the CPF.

Setting and participants: Trainee ANP's currently being supported or recently supported by CPFs within one H@N service in one Scottish NHS Health Board.

Design and methods: Purposive sampling was undertaken whereby a descriptive questionnaire was sent to 22 eligible participants.

Results: 16 questionnaires were returned. Qualitative data from the questionnaire generated several consistent themes from the participant's responses. The themes include: validation of competencies, supporting well-being, accessibility to a supportive source, Designated Prescribing Practitioner (DPP) role and support post qualification.

Conclusions: As experienced ANPs with additional training invested in coaching and clinical supervision, CPFs are ideally placed to meet the required needs of trainees in the team. Notwithstanding issues around sustainability, ongoing organisational commitment is key to ensuring Advanced Practitioners themselves are in optimal positions to provide support and supervision for the next generation of trainees.



1614

### **Closing the research-practice gap to optimize the role of the clinical nurse specialist: An integrated knowledge translation approach**

Dr Sandra Lauck<sup>1</sup>, **Dr Leah Lambert**<sup>1,2</sup>, Dr Natasha Prodan-Bhalla<sup>3</sup>, **Jagbir Kaur**<sup>2</sup>, Kevin Hare<sup>2</sup>, Heather Kilgour<sup>2</sup>, Charissa Chiu<sup>2</sup>, Dr Sally Thorne<sup>1</sup>

<sup>1</sup>University of British Columbia, Vancouver, Canada, <sup>2</sup>BC Cancer, Vancouver, Canada, <sup>3</sup>Provincial Services Health Authority, Vancouver, Canada

Background: In Canada, innovative nursing workforce transformation strategies are urgently needed to improve the quality and capacity of the healthcare system, amidst critical nursing shortages and escalating capacity challenges. In response, British Columbia (BC) has prioritized the optimization and integration of a clinical nurse specialist (CNS) workforce to promote quality care, contribute to innovative strategies to meet the increasing demands, and accelerate system level changes.

Objective: This presentation focuses on the effective use of an integrated knowledge translation (iKT) approach to develop a robust, equitable, and evidence-based roadmap for a provincial CNS strategy in close partnership with clinical, academic and health system leaders.

Approach: We will provide an overview of our multi-method study aimed at the production of distinct actionable and measurable policy output.

Key learnings: We will share insights and learning from iKT strategies such as: (1) establishing a co-investigator team inclusive of health service researchers and knowledge users, supported by a multidisciplinary Project Steering Committee, comprising of patient partners, health system and senior policy leaders, and researchers; (2) a multi-methods approach to capture comprehensive evidence from diverse sources and perspectives; (3) policy-setting workshops to develop consensus and tailoring options for optimizing the CNS workforce and address barriers to

sustained success; (4) a policy implementation strategy to pilot and evaluate policy for establishing a new CNS workforce in a cancer care organization; and (5) a KT plan to promote the spread of evidence.

Conclusion: The role of the CNS is ideally positioned to lead much-needed health system transformation. However, there is a pressing need to close the translational gap between the known benefits of the role and its underutilization across international regions.

Significance: We propose an effective and reproducible policy-development approach to tailor implementation strategies to local contexts of care using iKT as the driver for engagement and evidence.



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### **Advanced Practice Nurses in Primary Care in Switzerland - a Survey on Student's Perspective**

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To address the future healthcare needs of the population, the development of new care models is imperative to solve emerging problems. The availability of outpatient healthcare services is under pressure in Switzerland, mainly due to a shortage of primary care physicians and the increasing burden of health care in an aging and multimorbid population. The profession of advanced practice nurses (APNs) can contribute to a solution, yet APNs are not implemented in the primary care sector in Switzerland, due to various reasons not fully explored.

This study aims to elaborate on the perspectives of the next generation of APNs in Switzerland regarding their attitudes and the influences guiding them to work in primary care.

A cross-sectional study in form of a questionnaire was conducted to investigate the attitudes of Swiss APN Master Students towards working in primary care and corresponding influencing factors.

The study was performed in 2023 in two data collection rounds. By the end of the second data collection 203 students participate in the study.

The results of the study show that more students than expected have a positive Attitude on working in primary care and the qualitative part of the questionnaire enabled us to personal reasoning of the students for their answers.

Since this the profession and specialisation of the NP is rarely new in Switzerland there is no legal billing from the government yet. This survey gives insights on the student's perspective and show the great need legal action to actively integrate APNs into Swiss primary care sector.



1567

### **Advancing Rheumatology Care: Exploring the Role of Advanced Practice Nursing in Enhancing Self-Management and Self-Efficacy**

**Kendra Rohleder**<sup>1,2</sup>, Dr Regina Schmeer<sup>2</sup>, Dr Anne Eiken<sup>1</sup>, Tim Bertsche<sup>3</sup>, Prof. Dr Gunter Assmann<sup>1</sup>, PhD Christiane Kugler<sup>3</sup>

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Background: Individuals with inflammatory arthritis require effective self-management (SM), with self-efficacy (SE) crucially influencing their ability to navigate health challenges. Advanced Practice Nursing (APN) emerges as pivotal in meeting the needs of these individuals, aligning with principles emphasizing SM support, education, and counselling. European Alliance of Associations for Rheumatology (EULAR) recommends expanded roles for rheumatology nurses, including long-term SM support and consultations.

Objectives: This study evaluated SM and SE in patients with rheumatoid arthritis, spondyloarthritis, and psoriatic arthritis. It also sought determinants, particularly focusing on understanding the potential impact of APN roles, development, and interventions.

Methods: 102 patients from a German rheumatology outpatient clinic were surveyed. Patient-reported outcome measures included the Arthritis Self-Efficacy Scale (ASES) for SE and the Self-Management Assessment Scale (SMASc) for SM. Secondary variables encompassed diagnosis, disease activity, duration, physical health, fatigue, pain, emotional health/depression (PHQ-2), age, gender, and educational level.

Results: Participants, averaging 55 years with 66% female, showed positive SM (SMASc) and SE (ASES) ratings. Significant correlations linked SE to physical health, pain, fatigue, and emotional health ( $p < .001$ ). Multiple regression confirmed these variables as SE determinants ( $F(5, 94) = 16.7, p < .001$ ). Using analysis of variance, educational level significantly impacted SE (main effect:  $F(4, 73) = 5.2, p < .001$ ), with diagnosis showing interaction effects concerning education ( $F(8, 73) = 2.52, p = .018$ ) and gender ( $F(2, 73) = 3.64, p = .031$ ).

Conclusions: This study underscores the need of addressing SM and SE in rheumatology, highlighting the potential impact of APN. Key findings stress the significance of educational interventions for enhancing patients' confidence. Interaction effects emphasize the need for personalized approaches.

Significance: The establishment of APN in rheumatology care is advocated for optimal outcomes. Evidence-based support program development, which are essential given the identified correlations, could be ensured through APN expertise.



## 9.3 Investing in the APN Health Workforce

596

### **Learning how, why and in what circumstances: lessons learned from a realist evaluation of an Advanced Nursing Practice model in the Children and Young Peoples healthcare setting**

**Robin Hyde**<sup>1</sup>, Prof Sonia Dalkin<sup>1</sup>, Dr Christina Cooper<sup>1</sup>, Dr Sonya MacVicar<sup>2</sup>

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Background: Nurses are progressively assuming more complex responsibilities for patient care. Advanced practice as a workforce intervention has been adopted widely and considered a policy priority for many developed and developing countries worldwide. Yet as the popularity grows, with patient and organisational benefits acknowledged, a gap remains in understanding the nuances of this workforce reform i.e., how, why and in what circumstances it may work or not.

#### Objectives

1. To discuss the nuances (programme theories/ideas) discovered in examining a single model of Advanced Practice in the context of a Children and Young People's (CYPs) healthcare setting.
2. To explain how, why and in what circumstances such nuances (programme theories/ideas) are helpful to consider when developing an Advanced Practice intervention.
3. To share how a theory driven approach to research opens the black box of understanding, facilitating a deeper appreciation of the impact of Advanced Practice.

Methods or Approach: A mixed method single case study using realist evaluation principles was adopted for this research. This included documentary analysis, interviews, as well as a systematic review of the literature.

#### Key learnings or results

1. The following themes emerged from testing and refining of nuances (programme theories/ides).
2. Public perception surrounding Advanced Practice as an intervention.
3. Supervision and education -the broader impact and link to role transition.
4. Leadership as a glue.
5. Autonomy as the facilitator for adaptability in Advanced Practice.
6. Advanced Practice bridge, a pathway across professional hierarchies.
7. Demand led development and relationship to sustainability.

Conclusion: This oral presentation offers insights into nuances (programme theories/ideas) uncovered within a single case study examining an Advanced Practice intervention for Children and Young People's healthcare within the United Kingdom (UK).

#### Significance (Impact and Reach)

1. Informing workforce policy and planning.
2. Understanding impact of Advanced Practice in an underrepresented group -CYPs healthcare.



1564

### **Development of Advanced Practice Nurses Workforce in Switzerland**

**Prof Romy Mahrer-Imhof**<sup>1,2</sup>, Magdalena Osińska<sup>4</sup>, Roswitha Koch<sup>2,3</sup>, Prof Franziska Zúñiga<sup>4</sup>

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Background: In Switzerland, the Master of Science in Nursing programs preparing nurses for Advanced Practice (APN) started twenty-five years ago. The nursing associations decided to regularly review the APN workforce development and where APNs work in the healthcare system. An initial survey of master's graduates was conducted in 2013, in which 200 of an estimated 300 nurses participated. In 2022, the survey was repeated.

Objective: The survey aimed to compare the development of the workforce over time, to evaluate the developments in the professional fields for nurses with a Master of Science in Nursing, particularly for the APNs.

Method: The online survey was repeated with the same questionnaire as in 2013. Two additional questions on payment for APN services and the remuneration system were added. Educational institutions invited their alumni and the interest groups of APNs their members to participate.

Results: 505 persons (46% of all graduates) participated. The mean age was 42 years (SD: 10; range: 25-65 years), and the majority were women (427 (84.6%)) were women. Of all participants, 315 persons identified as APNs. APNs

indicated the master program was pivotal for their professional career (97.4% 2022 vs. 96% 2013). APNs worked in more clinical fields than in 2013, including such fields as mental health, intensive care, or rehabilitation. The percentages of APNs in, e.g. the long-term care increased (18.4 vs. 10.0%). Payment varied between 50'00 and >140'000 CHF per year.

Conclusion: The number of APNs has increased significantly over the last decade, and the master programs were pivotal to prepare for the scope of practice. APNs could expand in new fields of health care.

Significance: Surveying the APN workforce provides significant information for clinical and educational institutions and for the planning in health care systems.



1617

### **Informing provincial policy to optimize the clinical nurse specialist workforce in British Columbia Canada**

**Dr Leah Lambert**<sup>1,2</sup>, Dr Sandra Lauck<sup>2</sup>, Dr Natasha Prodan-Bhalla<sup>3</sup>, **Jagbir Kaur**<sup>1</sup>, Kevin Hare<sup>1</sup>, Heather Kilgour<sup>1</sup>, Charissa Chiu<sup>1</sup>, Dr Sally Thorne<sup>2</sup>

<sup>1</sup>BC Cancer, Vancouver, Canada, <sup>2</sup>University of British Columbia, Vancouver, Canada, <sup>3</sup>Provincial Health Services Authority, Vancouver, Canada

Background: In the past decade, policy advancements in the regulation, education, and funding of nurse practitioners (NP)s have resulted in significant role expansion and health system integration in Canada. In contrast, clinical nurse specialists (CNS), the other advanced practice nursing role recognized nationally and globally, have remained on the fringe of Canadian healthcare policy development with stagnant growth. Despite the demonstrated impact on improving patient experiences, outcomes, and health system utilization, CNS roles are frequently underdeveloped, sub-optimally deployed, and underutilized.

Objectives: This study aims to (1) generate evidence on how to best support, retain, and evaluate CNS roles; (2) co-create stakeholder-informed policy recommendations and actionable strategies to guide a CNS strategy in British Columbia (BC) Canada; and (3) develop a roadmap to implement and sustain new CNS roles in a provincial health authority.

Methods: This multi-method study utilizes an integrated knowledge translation (iKT) and patient-oriented research approach. We will present a synthesis of key findings across four data sources including an environmental scan (n=27), a provincial survey (n=96) of more than 90% of BC's CNS workforce, qualitative interviews of a purposive sample of diverse CNSs (n=23), and interviews with senior health system leaders, including provincial chief nursing officers (n=12), as well as insights from a policy-setting workshop.

Results: These findings highlight essential associations between variables such as role clarity, organizational integration, professional development, and access to networks and professional satisfaction and retention.

Conclusion: In this presentation, we will detail our approach of applying a research perspective to generate contextual evidence and highlighting the significant impact of organizational and structural factors on the optimization of the CNS role.

Significance: Using iKT methods, we mobilized qualitative and quantitative evidence to collaboratively co-develop actionable, evidence based-policy recommendations to advance and transform a CNS workforce that is tailored to the BC context.



## 9.4 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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### **Study on the Application of Exercise Rehabilitation Program for COPD Patients Based on PHE Model Led by APN**

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Regular exercise rehabilitation can improve lung function, improve quality of life, and reduce mortality and readmission in patients with COPD. However, the participation rate of exercise rehabilitation in COPD patients is generally low. Patient Health Engagement (PHE) model emphasizes that health engagement is a comprehensive reflection of cognition, emotion and behavior of patient health behavior management, which could be used to guide intervention practice.

To explore the intervention effect of exercise rehabilitation program on exercise endurance, compliance and quality of life of COPD patients based on PHE model led by APN.

84 patients with AECOPD were recruited from the respiratory department of a general hospital, and randomly assigned to the intervention group and the control group, with 42 patients in each group. The control group used the conventional exercise rehabilitation training program, while the intervention group used the new exercise rehabilitation program led by APN. The primary outcome measures were 6-minute walk test (6MWT) distance to assess exercise endurance and exercise compliance, and the secondary outcome measure was quality of life (SF-36).

After 12 weeks of intervention, the 6MWT distance in the intervention group was  $371.69 \pm 65.09$ , while that in the control group was  $324.95 \pm 74.96$ . The exercise tolerance in both groups was improved compared with the baseline ( $P < 0.001$ ), but only the improvement in the intervention group was clinically significant. The proportion of complete compliance and good compliance in the intervention group was 69.8%, while that in the control group was 27.7%. The total score of quality of life in the intervention group were higher than those in the control group, and the difference was statistically significant ( $P < 0.05$ ).

The program can enhance the exercise tolerance and compliance of COPD patients, improve the quality of life, and provide new ideas for rehabilitation nursing of COPD patients.



743

### **Insufficient self-care is associated with inadequate control of physiological biomarkers among rural adults with cardiometabolic diseases: Implications for APN**

**Prof Mei-Yen Chen<sup>1</sup>**

<sup>1</sup>Department of Nursing, Chang Gung University of Science and Technology, Putz, Taiwan

Background: Application of self-care behaviors can empower individuals with chronic conditions to actively manage their physical and mental health. Taiwan has implemented a national health insurance program that has garnered high levels of satisfaction. However, the number of unhealthy life-years, particularly in rural areas, remains higher than that in some developed countries. Objectives: To examine self-care abilities and levels of ideally controlled cardiometabolic biomarkers among rural adults with cardiometabolic diseases and to identify the factors associated with these outcomes. Methods: A cross-sectional, community-based study was applied in coastal region of Yunlin County, Taiwan. One-on-one interviews were conducted to collect data on self-care abilities, including medication adherence, healthy eating, exercise, substance use, and weight management, from individuals with cardiometabolic diseases. Multivariable linear regression was used to identify factors associated with inadequate control of cardiometabolic biomarkers.

Results: A total of 2044 rural adults with a mean age of 66.3 years, participated in the study. The study found that the prevalence of cardiometabolic diseases was 52.2%, with hypertension and diabetes being the most diagnosed conditions. Most of the participants (89%-99%) reported regular follow-ups and medication adherence. However, a significant number of participants did not engage in optimal self-care behaviors. Additionally, 90% of participants did not achieve adequate control of their cardiometabolic data. Multivariable linear regression analysis revealed that being overweight ( $p < 0.001$ ), cigarette smoking ( $p < 0.01$ ), and less exercise ( $p < 0.05$ ) were associated with inadequate cardiometabolic biomarkers.

Conclusions: High prevalence of cardiometabolic disease among individuals who lacked sufficient self-care abilities and adequate control of cardiometabolic biomarkers were found. These findings emphasize the importance of advanced practice nurses focusing on precise healthcare approaches to improve self-care abilities and to reassess the impact of treatment on rural adults with cardiometabolic diseases.

Significance: Sufficient self-care abilities and essential knowledge on mitigating the progression of cardiometabolic diseases are required.



1605

### **Nurse Practitioner-Led Diabetes Clinic Provides Rapid Access to Prevent Hospital Admissions**

**Tina Cheung<sup>1,2</sup>, Primrose Mharapara<sup>1,2</sup>**

<sup>1</sup>University Health Network, Toronto, Canada, <sup>2</sup>University of Toronto, Toronto, Canada

Background: Specialized or complex diabetes care are typically managed by endocrinologists. In a universal public healthcare system, patients are often faced with long wait times, particularly in sub-specialized areas, such as endocrinology. Prolonged wait time for specialized diabetes care can lead to diabetes complications and avoidable hospital admissions.

Objectives: The aim of this quality improvement study is to evaluate the wait time for care in a nurse practitioner (NP) led transitional diabetes clinic. It will also assess subsequent prevention of hospital admissions under the care of the NP-led clinic.

Methods: A NP-led transitional diabetes clinic was implemented in a large urban academic hospital in Canada. A retrospective evaluation on referrals sent to the clinic were performed over a period of 6 months. Referrals were assessed on turnaround time of initial consultation and chart reviews were made on the number of hospital admissions prevented as a result of referrals to this clinic.

Results: A total of 100 referrals to the NP-led diabetes clinic were evaluated. 98% of referrals were triaged within 24 hours. 90% of patients referred to the clinic were seen for initial consultation within 2 weeks of referral triage. A large number of referrals to the clinic prevented hospital admissions.

Conclusion: NPs can play an effective and efficient role in providing care to patients requiring prompt and specific disease management in a specialty setting. This NP-led clinic offers timely specialized diabetes care to prevent hospital admissions related to diabetes emergencies.

Significance: As diabetes prevalence increases and the aging population continues to grow, access to timely healthcare continues to decline. Healthcare reform needs to focus on new models of healthcare delivery. The significance of this study further adds to the existing literature to support the value of NP-led clinics in our growing healthcare climate to improve patient's quality of life.



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### **Promoting the Value and Impact that DNP-prepared Advanced Practice Nurses Bring to Organizations**

Dr Karen Kesten, Dr Katherine Moran, **Dr Amy Manderscheid**, Dr Dianne Conrad, Dr Catherine Corrigan, Dr Sarah Beebe

<sup>1</sup>The George Washington University, Washington, United States

Background: DNP-prepared nurses possess essential competencies in systems thinking, leadership, quality improvement (QI), evidence-based practice (EBP), and policy advocacy. The organizational perception of advanced practice nurses (APNs) and the support needed to sustain their contributions to improve health care is poorly understood.

Objectives: To explore the organization's a) support for DNP-prepared nurses to engage in practice scholarship b) perception of DNP scholarship impact and value these nurses bring to the organization.

Methods: A cross-sectional design was used to administer an online survey to a convenience sample of 101 organizational leaders who were part of the hiring process or interacted with DNP-prepared nurses through two national nursing leadership organizations. Open-ended responses were collected regarding perceived impact and value.

Results: Results indicated half of the organizations integrated scholarship competencies in job descriptions (53.5%, n=46) and evaluated competencies in annual reviews (55.8%; n=48). Moreover, nearly half reported providing no time for scholarship (47.1%; n=41) or providing recognition for scholarship (47.1%; n=41). The highest reported impact was on quality of care and interprofessional teams, while cost savings at the national and international levels had the lowest impact. The most reported value of DNP-prepared nurses included their ability to implement EBP and QI initiatives, innovative roles, and act as change agents.

Conclusion: There is an opportunity to maximize the value and impact of DNP-prepared nurses within organizations. Encouraging engagement in practice scholarship could positively impact system and health outcomes.

Significance: To maximize the value of DNP-prepared APNs, organizations may a) actively recruit, retain, and recognize DNP-prepared nurses in job descriptions, and create innovative roles b) partner with academic institutions to develop and track quality metrics specific to organizational and patient population levels, and c) capitalize on the unique skills and competencies of DNP-prepared nurses to meet organizational goals and objectives.





## 9.5 The UK perspective – Multi-professional Advanced Practice

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### Resilience Based Clinical Supervision for Advanced Practitioners

**Prof Melanie Rogers**<sup>1</sup>, Angela Windle<sup>1</sup>, Prof Vanessa Taylor<sup>1</sup>, Dr Lihua Wu<sup>2</sup>

<sup>1</sup>University of Huddersfield, Huddersfield, United Kingdom, <sup>2</sup>Kingston University, Kingston, England  
Background

Advanced Practitioners' wellbeing and resilience during Covid-19 were severely challenged. There has not been a bounce back to their wellbeing post Covid. Continuing wellbeing and resilience support is needed to reduce absenteeism and prevent Advanced Practitioners from leaving the profession in the United Kingdom. This presentation will discuss the Resilience Based Clinical Supervision (RBCS) for Advanced Practitioners model and evaluation data.

Objectives: To provide and evaluate RBCS for Advanced Practitioners.

Methods or Approach: RBCS is a unique form of clinical supervision which focuses on the emotional regulatory systems motivating a response to a work situation or difficulty. The aim of this is to support practitioners in developing their self-awareness and self-care. Additionally, RBCS supports practitioners to question organisational practices that impact negatively on their health and wellbeing.

RBCS is offered over 6x1.5 hours sessions over a 6-month period. It includes:

- Co-creating a safe place to explore issues impacting Advanced Practitioners.
- Focusing on emotional regulation systems in a nurturing and compassionate environment.
- Recognising the inner critic which many Advanced Practitioners experience and supports self-compassion.

Key learnings or results: Attendees felt RBCS improved their wellbeing and resilience.

There is an urgent need to support the on-going wellbeing needs and resilience of Advanced Practitioners through organisational systems and processes in the United Kingdom.

Employers need to prioritise and provide support to Advanced Practitioners. RBCS is an effective model to support Advanced Practitioners.

Conclusion: RBCS is a way of offering support to Advanced Practitioners. Feedback has shown Advanced Practitioners benefit from developing the skills and resources to support their wellbeing and resilience.

Significance (Impact and Reach): RBCS approaches work on a champion and cascade basis. Attendees are taught the skills to provide supervision to colleagues across their organisations



874

### Identifying and addressing barriers to equality and diversity within the Advanced Nurse Practitioner workforce

**Charlotte Barker**<sup>1</sup>, **Dr Melanie Rogers**

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Background: Data collected by the National Health Service (NHS) in the United Kingdom has identified slow progress regarding equality and diversity. In particular, leadership roles neither reflect or represent the diversity of its patient population or workforce.

Despite efforts to address issues of racism within the NHS, there has been limited success. The reasons for lack of progress are complex. Race equality initiatives are short lived because issues lie in deep rooted cultural norms and a structural, historical bias towards white people.

Objectives: Advanced Nurse Practitioners (ANP) are senior members of multi-disciplinary teams and in a prime position to provide inclusive clinical and organisational leadership to drive cultural change.

The aim of this 12-month project was to determine the ethnic representation of the ANP workforce across the Northeast and Yorkshire region, evaluate experiences and identify barriers to opportunities and career progression.

Methods: Purposive sampling of trainee ANPs undertaking an MSc Advanced Practice Programme were invited to complete a survey asking about their ethnicity and experiences of bullying, harassment and discrimination. Participants were offered the opportunity to contribute to focus groups to explore in detail their lived experiences.

Key Learning and Results: A comprehensive dataset assessing the diversity and professional experiences of the Advanced Practice workforce is conspicuously absent.

Themes highlighted included lack of understanding, lack of role models and mentors, recruitment bias, unconscious bias, issues with overseas qualifications.

Conclusion: In spite of the plethora of initiatives, policies, and regulatory directives implemented, the data substantiates the enduring disparities and an exasperatingly slow progression with respect to achieving workforce parity.

Significance: The results contribute to the existing data that demonstrates discrimination within health care and provides some suggestions on how these may be addressed, including the development of an inclusive recruitment toolkit, specifically for ANP workforce.



1023

### **Exploring non-medical prescribing activity and trends, and factors that support or inhibit uptake or implementation in remote, rural and island locations in Scotland: a sequential mixed methods study**

**Dr Judith Edwards**<sup>1</sup>, Dr Clare Carolan<sup>2</sup>, Dr Heather Bain<sup>2</sup>, Michael MacPhee<sup>2</sup>, Prof Nicola Carey<sup>2</sup>

<sup>1</sup>University of Surrey, Guildford, England, <sup>2</sup>University of the Highlands and Islands, Inverness, Scotland

Background: Non-medical prescribing (NMP) by UK nurses, pharmacists and allied health professionals (AHP), enhances medicines access, optimises skill use and promotes service delivery innovation. Currently, there is limited evidence about NMP implementation in remote and rural settings.

Objectives: This study explored multi-professional NMP service provision in remote, rural and island Scotland and identified factors that support or inhibit its uptake and implementation

Methods: A sequential mixed-methods study conducted during 2023. Phase 1: an online cross-sectional survey of multi-professional non-medical prescribers capturing data on demographics, service provision/organisation of care, prescribing practices, factors supporting/inhibiting NMP implementation (n=149). Phase 2: a qualitative study using focus groups/interviews exploring implementation drivers/barriers (n=19).

Results: Data show high rates of higher educational attainment levels, role seniority and prescribing in practice with a high number of items prescribed per week (n=18). NMP governance deficits are identified. Barriers to NMP implementation include lack of respondent knowledge/skills/confidence to prescribe; lack of organisational/team support for NMP; inadequate IT systems access; limited pharmacy access/medicinal stocks; and inadequate CPD/supervision/support to develop prescribing competence. Key facilitators comprised support from colleagues; access to clinical support, supervision and specialist advice; access to CPD and governance structures; local/nationally agreed formularies, clinical guidelines and electronic resources; and MDT working. Qualitative data emphasise the critical importance of context in shaping NMP practice.

Conclusion: Implementation barriers suggest greater focus on role preparation and development is required to ensure NMP is an effective approach to support practitioners and alleviate workforce shortfalls in UK remote, rural and island locations.

Significance: First to explore multi-professional NMP in remote and rural locations in the UK, the results of this study contribute to the evidence base informing the extension of prescribing rights to non-medical health care professionals in other countries.



1625

### **NHS Grampian and the Scottish Ambulance Service Leading The Way: A Multi-Disciplinary Approach to Providing Senior Clinical Decision Making Support**

**Alison Moggach, Rob Bradley, Diane Brands, Nicola Pratt, Rebecca Scott**

The Flow Navigation Centre (FNC) in NHS Grampian (NHSG) was established in December 2020, as part of the NHS Scotland Redesign of Urgent Care Programme, to support people to access the right care in the right place at the right time. Initially consultant-led, NHSG in partnership with the Scottish Ambulance Service (SAS), have worked closely together to develop a more sustainable workforce model involving a mix of advanced practitioners (APs), who rotate and work flexibly and autonomously as part of a wider multi-disciplinary team, to support flow navigation across the system. Applying Quality Improvement methodology and building on the vast array of senior leadership, clinical knowledge and expertise of each AP, in nursing and paramedic practice, across specialties including acute medicine, primary care, mental health and paediatrics, the APs have undertaken a dynamic role, including providing pre-hospital senior decision-making support to ambulance crews and care homes, as well as carrying out virtual patient

consultations, training and leading on the development of new pathways within their own services, for example Mental Health and Ambulatory Emergency Care. On average the multi-disciplinary team now handles upwards of 1300 calls per month, representing a four-fold increase in activity, with c.80% being redirected to a more appropriate pathway of care, helping support patients to receive the right care in the right place at the right time, as close to home as possible. This workforce model has demonstrated the benefits that can be realised from joint-working and taking a multi-disciplinary approach to urgent care, maximising the capacity, capability and agility of the workforce and enhancing the understanding of roles and communication between pre-hospital and secondary care, creating a culture of mutual trust and respect.



## 9.6 APN's Role in Shaping a Healthier, More Equitable World

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### Forty Eight Years as a Nurse Practitioner -A Story Shared

#### Maureen Horsley

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The Nurse Practitioner (APN) movement began in 1960's as a collaborative new practitioner role developed by a public health nurse and a pediatrician. This presenter seized an opportunity in 1976 to attend and complete an early NP certificate program.

The objectives of this oral presentation are to share the story of one early nurse practitioner's educational, clinical, occupational, professional, social, and political involvement. She helped define and develop the role, promote high quality clinical care to underserved populations and contributed to formulate rules and regulations to guide legislation and promote prescriptive privileges for Advanced Registered Nurse Practitioners. Collaboration with others will be emphasized. The presenter currently practices in a NP owned and NP independent practice. Endurance is essential. Personal experiences of struggles, challenges, sacrifices and rewards over a forty eight year time table will be told. GUIDING mantra "What is best for the patient?" is promoted. The presenter hopes to educate the listener, share insights, encourage and inspire listeners to stay committed to thorough basic standards as roles emerge and progress.

By understanding APN historical origins and evolution, we can support each other. Being aware to "pot holes" by learning from the presenter's past experiences- may smooth each APN's path to culturally appropriate role development and clinical practice.

APNs must be capable, credible and flexible to meet health care shortages and support patient needs.

The presentation hopes to inspire colleagues to blossom another forty eight years and beyond!

Outcomes include increased historical understanding of ONE nurse practitioner's evolution during nearly half a century. Understanding the importance of strong knowledge, overcoming adversity, and high quality patient care is emphasized. Presentation will encourage professional self examination, reflection, reassessing, setting personal goals, and challenging "WHY" am I an Advanced Practice NURSE?

We can model and inspire APN colleagues by celebrating our stories.



673

### A review of the scope of role experience and cognition of advanced practice nurses

#### Runfang Guo<sup>1</sup>

<sup>1</sup>Chengdu, China

Background: With the increasing global burden of disease, the shortage of health care resources, the continuous expansion of the scope of nursing services and the deepening of professional skills, a new nursing role - advanced practice nurse has emerged. Advanced practice nurse refers to the applied nursing talents with deep specialized knowledge, decision-making ability on complex issues and the ability to expand clinical practice. However, with the expansion of roles, researchers have found that professional characteristics and corresponding development will bring positive effects on nurses, but also bring negative psychological changes, that is, produce complex professional experience and cognition.

Objectives: To review the relevant researches on role experience and cognition of advanced practice nurses at home and abroad, analyze the current research status in this field, and provide reference for future research on APN.

Methods or Approach: Using the scope review methodology as the framework, we searched Web of Science, Pub Med, CINAHL, The Cochrane Library, Embase and Wanfang database, CNKI, China Biomedical Literature Database and VIP Chinese science and technology journal database. Two researchers searched and screened the Chinese and English literature from the database until January 25, 2024, and used the topic analysis method to classify the included literature.

Key learnings or results: 10 literatures were included and three themes were generated, namely, contradictory self-perception, professional self-recognition, and professional development ambiguity.

Conclusion: There are differences in the development of APN at home and abroad. In order to promote the development of APN, it is necessary to improve the relevant system and strengthen professional education to match the management according to the role experience and cognition at different stages.

Significance: To provide reference for the development of advanced practice nurses



1469

## **The development and implementation of Advanced Nurse Practice in Mental Health and Intellectual Disability in Ireland**

**Angela Colgan**<sup>1</sup>

<sup>1</sup>Stewarts Care, Dublin, Ireland

Background: Mental health services for people with intellectual disability (ID) should be provided by a specialist mental health team that is catchment based and in line with the general population. Development of such teams was in its infancy and shaping the future of ID nursing in Ireland has outlined the requirement for Registered Intellectual Disability Nurses to develop and enhance skills to become leading practitioners in this area. One area that has been identified is mental health (MH). The prevalence of MH conditions for those aged over 40 with an ID is reported at over 47.5 %.

Objectives: Vision for Change (2006) in Ireland acknowledged that the delivery of services to the majority of people with an ID came from voluntary organisations which are partly funded by the Health Service Executive (HSE). These organisations deliver care via multi-disciplinary teams using a person-centered approach addressing the general needs of service users however they may not address specialist MH needs. To enhance service delivery and improve the quality of services delivered to people with an ID and mental health concern the development of an Advanced Nurse Practitioner (ANP) in MHID was implemented.

Approach: The introduction of ANPs has been formulised in other nursing disciplines for some time however ID nursing had only 2 ANP in practice. So In collaboration with the MHID team in the HSE and a large ID service the role was developed. Thus developing the clinical and professional relationships, the inclusion and exclusion criteria along with the referral pathways.

Conclusion and Impact: It is important that people with MH and ID have access to quality assessment and treatment however in order for these criteria to be met then the workforce in which facilitates this service requires increased knowledge and awareness of in MH and ID.



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## **Advanced Practice for People with Learning Disability and/or Autism: What do we know, what do we need to know?**

**Dr Martin Bollard**<sup>1</sup>, Dr Ben Appleby<sup>1</sup>

<sup>1</sup>University Of Wolverhampton, Wolverhampton, United Kingdom

Background: Advancing Practice (AP) is seen as a response to the complex healthcare systems health professionals work in, both in the United Kingdom and internationally. Yet, health professionals' role, identity, and scope of practice in delivering complex healthcare has become increasingly challenging to identify and articulate. This is no more evident than in the field of Learning Disability and Autism.

Objectives: To share the findings from a nationally funded 12-month co-evaluation study.

To illuminate the nuanced features of Advanced Practice when caring for people with Learning Disability and Autism against the Capabilities Framework (HEE, 2020).

To briefly share observations from the first international scoping review investigating the positionality of Advanced Practice in Learning Disability and Autism

Methods: A mixed methods approach underpinned by Human Centred Design (Giacomin, 2014), enabled co-evaluation to take place with both the funder and people with Learning Disability and Autism. Descriptive data, focus groups, interviews, consultation with a workforce advisory panel and the project steering group, made up of People with Learning Disability and Autism, provided observations on AP in this distinct field of practice.

Key learning: Two University led programmes provided the focus to make observations on AP for People with Learning Disability and Autism against the Capabilities Framework (HEE, 2020). The capabilities and pillars operationalised the delivery of the programme. Reporting impact of advanced practice and on actual care delivery is inconsistent and from a weak evidence base in this field.

Conclusion: Completing the HEI programmes both verified and boosted practice confidence across the trainees. Further empirical research is required to be able to further articulate the AP's contribution to caring for this population group and its capacity to overcome inequalities.

Significance: The study has international significance promoting a distinct field of practice with it's potential to overcome inequalities.



## 9.7 Symposium: Empowering Nurses to Influence Policies and Decisions for Effective Advanced Practice Nursing Role Implementation

NPAPN24012

Convenors: Dr Ruth Martin Misener<sup>1</sup>, Samantha Horvath<sup>2</sup>, Jennifer Splane<sup>3</sup>

<sup>1</sup>Canadian Centre for APN Research (CCAPNR), <sup>2</sup>School of Nursing, McMaster University, <sup>3</sup>School of Nursing, Dalhousie University

Purpose: To empower nurses to engage in activities that support effective policies and decisions about the implementation of advanced practice nursing roles.

Objectives:

1. To increase knowledge about how to identify, engage, influence, and collaborate with stakeholders in policy and decision-making regarding advanced practice nurses (APNs).
2. To provide examples of effective strategies nurses can use to inform and influence healthcare policies relevant to APNs (e.g., creating coalitions, anticipating policy problems/solutions, getting to policy tables, translating evidence).

Rationale: Optimizing the health systems integration of APNs worldwide is essential to improve access and quality of care, address health inequalities, improve global health, and create sustainable healthcare services. Research consistently identifies the lack of nurses' involvement in policy and decision-making as a barrier to introducing advanced practice nursing roles and their effective implementation in many countries. Strengthening the voice, visibility, and leadership of nurses to inform and advocate effectively for healthcare policies is critical for advanced practice nursing role optimization.

Summary: This symposium will be of interest to APNs and others (e.g., nurse managers, educators, researchers) who want to influence healthcare policies (e.g., regulation, funding, education) that support advanced practice nursing roles. It builds on our international experience in leading research and knowledge translation initiatives to improve policies and decisions about APNs. The format includes: introductions (2-minutes), 3 presentations (12-minutes each), discussion (20-minutes), and wrap-up (2-minutes)

We will apply the Multiple Streams framework (i.e., problem, policy, politics) across the presentations to illustrate international examples of effective policy-making about advanced practice nursing roles and how nurses were involved. The 3A (anticipate, align, and act) model will be used to identify practical ways nurses can influence policy-making.

Moderated discussion will promote reflection on lessons learned from the presentations. Participants will share experiences and discuss how to build their capacity to engage and influence policy-making about advanced practice nursing roles. These questions will guide the discussion:

- What are practical ways you can apply the 3A framework in your nursing role?
- What are the barriers to your participation in policy-making?
- What are practical solutions to address barriers to your participation in policy-making?

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### Understanding the Black Box of Policy-Making and How to Influence Policies for Advanced Practice Nursing at Different Health System Levels

**Denise Bryant-Lukosius**<sup>1</sup>, Nancy Carter<sup>1,2</sup>, M Consuelo Cerón Mackay<sup>1,2,3</sup>, Rini Dass<sup>1,2</sup>, Samantha Horvath<sup>1,2</sup>, Ruth Martin-Misener<sup>1,4</sup>, Minna Miller<sup>1,5</sup>, Amanda Santos<sup>1,4</sup>, Jennifer Splane<sup>1,4</sup>

<sup>1</sup>School of Nursing, McMaster University, <sup>2</sup>CCAPNR, <sup>3</sup>Faculty of Nursing/Midwifery, Universidad de los Andes-Chile, <sup>4</sup>School of Nursing, Dalhousie University, <sup>5</sup>School of Nursing, University of British Columbia

Background: Lack of knowledge, skills, and confidence are consistently reported barriers to nurses' involvement in policy. Policies that impact on advanced practice nursing role implementation can occur at different health system levels, but nurses may not be aware of how they can engage in and influence policy making at these levels.

Objectives:

1. To increase understanding of policy and the policy-making process in healthcare.
2. To provide examples of how nurses can engage in policy-making about advanced practice nursing roles at organizational, national, and international levels.

Methods: The presentation will begin by defining policy, describing the policy cycle, and providing examples of different types of policy relevant to advanced practice nursing roles. Using the 3A model, three examples (academic-clinical practice partnership, national taskforce, and dissemination/exchange with government) of how nurses have influenced policy-making for advanced practice nursing roles at an organizational, national, and international level will be described.

Key Learnings: Awareness of healthcare trends and issues enables nurses to anticipate and prepare for policy windows of opportunity and to identify and understand healthcare problems that align with optimal utilization of advanced practice nursing roles. To act at different stages of the policy cycle, nurses require leadership skills and a good understanding of policy-making. Building credibility, forging collaborative relationships, and establishing shared goals with important stakeholders takes time, but helps to balance power relationships and get nurses to policy tables where they can influence decisions. Passion, patience, and persistence are important nurse attributes in policy-making.

Conclusions: All nurses can act at various levels of the health system to influence policy relevant to their roles.

Significance: Empowering nurses to lead and engage in policy-making in support of advanced practice nursing roles is essential to promote APN recruitment and retention, improve health, and strengthen health systems around the world.

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## **Jumpstarting Policy-Making to Introduce Advanced Practice Nurses in Chile: Lessons Learned from Nurse-Led Stakeholder Engagement Strategies**

**M Consuelo Cerón Mackay**<sup>1,2,3</sup>, Denise Bryant-Lukosius<sup>2,3</sup>, Nancy Carter<sup>2,3</sup>, Rini Dass<sup>2,3</sup>, Samantha Horvath<sup>2,3</sup>, Ruth Martin-Misener<sup>3,4</sup>, Minna Miller<sup>3,5</sup>, Amanda Santos<sup>3,4</sup>, Jennifer Splane<sup>3,4</sup>

<sup>1</sup>Faculty of Nursing and Midwifery, Universidad de los Andes-Chile, <sup>2</sup>School of Nursing, McMaster University, <sup>3</sup>CCAPNR, <sup>4</sup>School of Nursing, Dalhousie University, <sup>5</sup>School of Nursing, University of British Columbia

Background: Despite the established effectiveness of advanced practice nurses (APNs) for improving health and health system outcomes, they are an underutilized resource around the world, including in Latin America. One contributing factor is the underdeveloped skills of nurses to effectively intervene in policy and healthcare decision-making.

Objectives:

1. To examine nurse-led strategies utilized in Chile to involve key stakeholders in identifying policy priorities for the implementation of APNs in primary healthcare (PHC).
2. To discuss lessons learned and progress made to strengthen policy-making in support of APNs in Chile.

Approach: We applied the Multiple Streams framework to engage with stakeholders relevant to the implementation of APNs in PHC. For the problem stream we met with influential national and international experts, government policymakers, and healthcare decision-makers to understand their views about APNs and PHC and to identify policy drivers and potential stakeholder alliances. For the policy stream, we established a coalition of influential leaders to implement a discussion forum involving diverse PHC stakeholders. Through this forum, strategies to get the concept of APNs in PHC on the policy agenda were generated. In the political stream, we leveraged national policy priorities for PHC reform to bring these stakeholders together.

Results: In total, 50 stakeholders participated in the engagement activities. Opportunities to implement APNs to provide specialized services in PHC were identified. A key recommendation was to enhance the nursing profession's presence at policy-making tables for PHC reform. Forum results resonated with the policy-makers in the Ministry of Health, and set the stage for ongoing collaboration.

Conclusion and Significance: Efforts to engage stakeholders requires a strategic approach, involving time, proactivity, astuteness, and political skills. Chile's priorities for healthcare reform provides a policy window opportunity to advance the implementation of APNs in response to workforce needs in PHC.

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## **Strategies for Sharing Information and Research about Advanced Practice Nursing with Decision-Makers**

**Nancy Carter**<sup>1,2</sup>, Denise Bryant-Lukosius<sup>1,2</sup>, M Consuelo Cerón Mackay<sup>1,2,3</sup>, Rini Dass<sup>1,2</sup>, Samantha Horvath<sup>1,2</sup>, Ruth Martin-Misener<sup>1,4</sup>, Minna Miller<sup>1,5</sup>, Amanda Santos<sup>1,4</sup>, Jennifer Splane<sup>1,4</sup>

<sup>1</sup>School of Nursing, McMaster University <sup>2</sup>CCAPNR, <sup>3</sup>Faculty of Nursing and Midwifery, Universidad de los Andes-Chile, <sup>4</sup>School of Nursing, Dalhousie University, <sup>5</sup>School of Nursing, University of British Columbia

Background: Despite literature on the uptake of research evidence by healthcare decision-makers, there is little known about how administrators and policy-makers seek and utilize information about advanced practice nurses (APNs). Barriers to the use of evidence by decision-makers are like those for clinicians and include knowledge, attitudes, and behaviours. The exchange of information and evidence between APNs and decision-makers is an interaction requiring skill and expertise in knowledge translation techniques.

Objectives:

1. To provide APNs with a framework to guide their interactions in sharing knowledge with decision-makers.
2. To provide examples of tools for sharing information about advanced practice nursing with decision-makers.



Methods: A framework for guiding dissemination of research findings to decision-makers in healthcare will be utilized. The framework applies five questions to shape knowledge translation strategies with decision-makers: (1) what should be transferred to decision-makers? (message), (2) to whom should research knowledge be transferred? (target audience), (3) by whom should the research knowledge be transferred? (messenger), (4) how should research knowledge be transferred? (knowledge transfer process and supporting communication infrastructure), and (5) with what effect should research knowledge be transferred? (evaluation). Using this framework, examples of knowledge translation activities about APNs will be shared, including the purposeful interaction and engagement of decision-makers in research, and the creation of knowledge products like evidence/policy briefs.

Key Learnings: Participants will learn how to share information about APNs with decision-makers at organizational and policy levels. The presentation will also provide individual APNs with strategies to take advantage of policy priorities and shape advanced practice nursing messages for uptake.

Conclusions: The presentation underscores the positive impact of APN involvement in healthcare policy and knowledge exchange.

Significance: How evidence is transformed and communicated is the first step to capturing the attention of decision-makers and getting issues relevant to APNs on the policy agenda.



**10.1 Clinical Workshop: Regional Anesthesia: An effective alternative for Pain management in urgent care settings**

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**Associate Prof GERALYN OCHS<sup>1</sup>**

<sup>1</sup>St. Louis University, St. Louis, United States

Background: There are common injuries that present to urgent care areas (e.g. dental trauma and hand injuries) that require pain management. There are many patient factors that influence appropriate pain management (type of injury, patient age, medical history) as well as resource availability, cost, and provider experience. Providing advanced practice nurses (APRNs) with different options to manage pain increases positive patient outcomes.

Importance of the topic: Systemic agents (opioids) are associated with an increase incidence of unwanted effects. Local infiltration is a commonly employed method that can provide effective pain management to a specific area of the body rather than systemically. The application of a local anesthetic near peripheral nerves provides anesthesia restricted to the specific nerves.

Purpose: This workshop will provide advanced practice nurse (APRNs) with the necessary skills in the administration of regional anesthesia (local infiltration) to control pain. Participants will learn the various techniques (dental and digital blocks) and with proper instruction will be able to deliver them safely and effectively.

Objectives:

1. Increase in the knowledge related to techniques for local anesthetic agents for intraoral injury and dental pain.
2. Increase knowledge related to the techniques for digital blocks for hand injuries.
3. Learners will self-report an increase in confidence when managing pain in patients with dental or hand injuries.

Format: Brief discussion of specific procedures, anatomy of nerves, equipment list, preparation of the patient and detailed technical guidance for the performance of regional anesthesia with the expected outcomes. Dental and hand stations will be set up to engage participants in return skill demonstration and group discussion.

Expectations and learning objectives achieved: The learner will self report an increase in knowledge about pain management with regional anesthesia.

Knowledge/skills achieved: The participants can immediately apply these psychomotor skills (dental blocks and digital blocks) to deliver fast and efficient patient care as well as improved patient satisfaction.



## 10.2 Symposium: The key-role of Advanced Nurse Practitioners in improving health care - lessons from the Netherlands

NPAPN24038

Convenor: TBC

Purpose: Providing insight into the development of the Advanced Nurse Practitioner (ANP) in the Netherlands as best practice.

Objective: Participants get acquainted with the profession of the ANP in the Netherlands. Participants take lessons from the development of the ANP in the Netherlands and translate them into their own context.

Rationale: The positive effect of the ANP on healthcare can be seen and felt throughout the whole of the Dutch healthcare system. They deliver care which is cost-effective, safe and of good quality, leading to high patient satisfaction. Their legal anchoring, which resulted in full practice authority, is one of the key conditions. With this full practice authority, the ANP's play an essential role in the current challenges that arise in Dutch healthcare, e. g. workforce shortages and the paradigm shift in healthcare from illness to health.

Summary: The governance and development of the ANP in the Netherlands is secured by the Dutch Association of Nurses (V&VN), divided into three independent bodies: the Dutch council for ANP (CSV), the registration committee for ANP (RSV), and the Dutch association of advanced Nurse Practitioners (V&VN VS). They provide the right checks and balances in regulation, legislation and maintenance regarding ANP's. They demonstrate how the profession of APN was originated in the country, its current status, and the desired future direction.

The required conditions for the successful implementation of the profession of APN in the Netherlands will be addressed. This includes discussing their role of autonomous practitioner with a full practice authority.

The goal for 2023 is that every patient will have access to the care and treatment of a ANP. The plan how to achieve this goal and what opportunities and threats are anticipated along the way will be discussed.

In this symposium the chairs of the three independent bodies will join hands and give a complete overview of the development of advanced practice nursing in the Netherland.

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### Laws and regulation regarding Advanced Nurse Practitioners in the Netherlands

I. Bennekom, L. Verhoeven, **M. Veenstra**, A. Uitewaal  
CSV

The ANP has been established in the Netherlands for over 25 years. In this presentation we will briefly touch upon its history and provide an explanation of the Dutch healthcare system, the Dutch Individual Healthcare Professions Act to provide context for the development of the ANP profession.

The Dutch Ministry of Health introduced the profession in 1997 as an advanced position for nurses to better respond to growing population health needs.

In response to anticipated future shortages of physicians, it was recognized early on that certain physician responsibilities could also be carried out by nurses. This led to the legal embedding of the ANP profession in the Netherlands. To accomplish this, the representative professional association established a legislative body, an executive body, and a judiciary body.

The legal assurance of the professional title through the establishment of various specializations will be elucidated. Furthermore, the law dictates the authorities of ANP's with full practice authority. CSV advises the ministry of Health in further development of laws and regulation, regarding the ANP's.

The council sets regulations for ANP education, as well as for ANP registration and registration in the Netherlands.

Key learnings:

- Insight in Dutch Healthcare System
- Dutch Law regarding ANP's in the Netherlands
- Advising the Ministry of Health: Development and regulation of the full practice authority
- Setting regulations for APN education and APN registration.

## Regulation and maintenance of laws and regulations regarding nurse practitioners in the Netherlands

**I. de Hoop**, B. Vogel  
RSV

The registration committee implements these laws and regulations, while the judiciary assesses conflicts regarding decisions made against professional colleagues. They also monitor the nine universities of applied science that offer the Master of Advanced Nursing through a quality framework.

An introduction will be provided regarding the registration commission, detailing its structure, role, and how it operates. This will involve reflecting on the evolution of laws and regulations regarding the Advanced Nurse Practitioner over the past years and how the commission's development aligns with advancements in the profession.

The transition from control to trust will be emphasized, which is also reflected in a new re-registration method currently under development. This new method prioritizes stimulating the intrinsic motivation of ANP's. Key components of this new method will include self-assessment, development planning, peer feedback, and evaluation.

Key-learnings:

- Introduction into the Dutch registration committee for APN
- Implementing law and regulations for the (individual) APN
- Developing from control system to trust-system through a new registration model.



## Moving towards sustainable and accessible Dutch healthcare: the essential contribution of Advanced Nurse Practitioners

**I. Rinzema**, V. Mouthaan, A. Offenbergh  
V&VN VS

In 2030 every patient in the Netherlands has access to an ANP. This is the main mission of the Dutch Association of Advanced Nurse Practitioners. How can this be achieved? What are the opportunities for Dutch ANP's? What challenges are they facing?

Over 5000 ANP's in the Netherlands combine nursing care with medical skills and knowledge. They deliver safe, more holistic and integrated care for their patients. It demonstrates a positive impact on healthcare and healthcare outcomes, which gives opportunities to expand the role of ANP's in Dutch healthcare.

Although a full practice authority is accomplished, the occupation is embedded by law and the role of APN's is fully government supported, there are still challenges and threats to face.

The Dutch association of APN's works tirelessly towards expanding the governance, conditions and assumptions of Advanced Nursing Practice. They keep on expanding the scope of practice of ANP's by advocating the role APN's can play in gaining sustainable, affordable and accessible healthcare of high quality for their patients. They advocate to increase the total number of ANP's in the country. Meanwhile, data still is collected to prove this added value to healthcare. This journey will be discussed in this presentation.

Key-learnings:

- Strategies to achieve expanding the role of Dutch ANP's
- Opportunities for ANP's in (Dutch) health care systems
- Challenges for ANP's in the Netherlands
- Anticipating possible threats for advance practice nursing.



### 10.3 Symposium: The Future of the APN Role in Africa: Charting a Course to Full Role Implementation and Health Equity

Convenor: Dr Janet Dewan

Northeastern University, Bouve College of Health Sciences, Nurse Anesthesia Program

**Purpose:** The purpose of this symposium is to examine the intersection of practice, policy, and education in achieving full implementation of the APN role and to prompt a candid and vigorous discussion about the real-life challenges that African countries face in implementing the role.

**Objective:** At the conclusion of this symposium participants will be able to:

- Articulate the rationale for why the alignment of education, practice and policy is critical to enabling APNs to practice to the top of their licenses and achieve full role implementation.
- Identify the value added of APNs to achieving universal healthcare (UHC) and health equity.
- Apply/translate lessons learned from case studies of APN implementation in Liberia and Eswatini.
- Compare and contrast role implementation challenges and opportunities across sub-Saharan African countries.
- Discuss value-based ways to craft locally tailored messaging about the APN role to educators and country policy makers including nursing councils, health system leaders and ministries of health.

**Rationale:** APN roles, including Nurse Practitioners and Anaesthetists have gained recognition as an important addition to the global healthcare workforce whose implementation is key to achieving UHC. The recent publication of the ICN book edited by Thomas and Rowles, *Nurse Practitioners and Nurse Anaesthetists: The Evolution of the Global Roles*, highlights the value-added of the APN role and the specific contribution of the role to improve UHC. However, the success of APN role implementation has been uneven. The exemplars in the book from Africa report challenges in achieving the integration of education, practice, and policy, which directly affects full role implementation. We will use the example of the Nurse Anaesthetist role in Liberia and the Family Nurse Practitioner role in Eswatini to examine the challenges and opportunities to align the 3 pillars that enable APNs to work at the top of their licenses.

**Summary:** Unless the 3 pillars of education, practice and policy are aligned, full implementation of the APN role is not possible. This symposium will facilitate a candid discussion of the challenges countries face when implementing the APN role. Participants will learn about the experience in Liberia and Eswatini and will explore data-informed, locally tailored ways to pitch the value added of the APN role to country officials.

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#### **Nurse Anaesthetists: Leading the Way for the Advanced Practice Role in Liberia**

**Cecelia C. Kpangbala-Flomo**<sup>1</sup>, Wilmot Fasah<sup>2</sup>, Aaron Sonah<sup>2</sup>

<sup>1</sup>Liberian Board for Nursing and Midwifery, <sup>2</sup>Phebe-Esther Bacon College of Health Sciences, Nurse Anesthesia Program

**Background:** Nurse Anesthetists (NA) have a long history in Liberia. The initial preparation of Nurse Anesthetists in Liberia was dependent on visiting faculty teaching the program employing an apprenticeship model. There was no formal credentialing as an advanced practice nurse, however the role was integrated into the schema at the Liberian Ministry of Health (LMOH) and NAs worked in government hospitals. In 2017 the country embarked on an effort to improve the quality and quantity of nurse anesthetists through education reform and formal credentialing.

**Objectives:** We provide evidence that the recognized NA role in Liberia demonstrates alignment of education, practice, and policy.

**Approach:** Examination of the NA role in Liberia reveals that NAs have an established education program that meets international standards and competencies for nurse anesthesia education and practice, are regulated and credentialed by the Liberian Board for Nursing and Midwifery (LBNM) with an accepted scope of practice and are hired by the LMOH to work in government hospitals.

**Lessons Learned:** World leaders committed to achieving UHC benchmarks by 2030 and acknowledged the central role of surgery and anesthesia in achieving health equity. The NA role serves as a fundamental component for assuring that health systems can provide access to surgery. A capacity assessment of anesthesia providers in Liberia demonstrated the critical role that NAs play in providing access to essential and emergency surgery and skilled anesthesia care. NAs provide 87% of anesthesia delivered in the country and 97% of anesthesia service in rural areas. They are educated and credentialed to practice independently and the LMOH includes them in their schema of service. Successful integration of competency-based education, practice and policy underpins their ability to fully function in the APN role.

**Significance:** In African countries where nurse anesthetists practice, the NA role may provide a way to demonstrate the value added of the APN role to achieving UHC and health equity and can provide an exemplar for the integration of education, practice, and policy.

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## Implementing the FNP Role in Eswatini: Successes and Challenges

**Dr Bonisile Nsibandze**<sup>1</sup>, Dr Colile P. Dalmini<sup>1</sup>, Prof Tengetile R. Mathujwa-Dlamini<sup>1</sup>, Beth Russett<sup>2</sup>  
<sup>1</sup>University of Eswatini, Faculty of Health Sciences, Department of General Nursing Science, <sup>2</sup>University of Massachusetts Boston

**Background:** There is a large unmet need for acute and chronic care in Eswatini. As Eswatini strove to improve UHC for its citizens, a solution to bridge this gap in was needed. The FNP role was proposed to meet this need.

**Objectives:** We provide evidence that a country-specific, FNP education program was actualized and that the Eswatini Nursing Council (ENC) approved a Scope of Practice and credentialing process for the FNP role.

**Approach:** Pre-implementation of the FNP role a landscape assessment was conducted using the PEPA framework. Stakeholder input was sought from health professionals, community members, policy makers, non-governmental organizations and health facilities, and feedback informed the development of the FNP role.

**Lessons Learned:** Stakeholders expressed interest in and support for the FNP role. The University of Eswatini developed a master's level FNP program that addressed FNP competencies, was tailored to the healthcare needs of Eswatini and included robust clinical rotations. Thirteen FNPs have graduated and been credentialed by the ENC. However, the integration of the role within the Eswatini Ministry of Health and Ministry of Public Services has not been achieved. Thus, hiring into the FNP role in government hospitals (where most Eswatini receive healthcare) has been hampered by the lack of an established FNP position at the APN grade and commensurate pay. Graduates have, however, been hired into the FNP role in private healthcare facilities. A follow-up assessment is underway to examine outcomes as well as barriers/challenges to role implementation.

**Significance:** Despite the healthcare needs and support of stakeholders for the FNP role, as well as actualization of an accredited FNP program and a pathway to be credentialed to practice; full implementation of the FNP role has not been achieved. To fully realize the contribution of FNPs in meeting Eswatini's goal for UHC and health equity, there remains the need to integrate the role into the government healthcare workforce schema. Data will be important to achieve this goal.

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## The Power of Consensus and Data

Dr Eileen Stuart-Shor<sup>1,2</sup>  
<sup>1</sup>Beth Israel Deaconess Medical Center, <sup>2</sup>University of Massachusetts Boston

**Background:** Nurse practitioners are emerging as valued healthcare professionals with immense possibilities to contribute to the realization of UHC and actualize Health for All. To that end, there needs to be consensus on the APN role elements (with flexibility for local tailoring) and the alignment/integration of education, practice and policy in a way that enables the APN to practice to the top of their license. Lack of integration of the 3 pillars can lead to issues such as task shifting without the appropriate education, credentialing, or advanced practice role legitimacy; or graduates of APN education programs without a pathway to be credentialed or work in the advanced practice role. This represents a missed opportunity for nursing in the APN role to contribute to meeting their countries' goals for UHC and health equity.

**Objectives:** We will present evidence that consensus on the role elements and pillars for education, practice and policy will support gathering within and between country outcome data to inform value-based propositions for full implementation of the APN role.

**Approach:** The LACE consensus model (licensure, accreditation, certification, education) provides a framework for a conversation about global APN competencies and the pillars needed to achieve full role implementation. Value-based healthcare arguments will be used to secure policy makers support.

**Conclusion:** Value-based care is a strategy to improve population health while reducing cost. Published studies suggest that APNs deliver quality, value-based care and improve access, UHC and health equity but data-based outcomes are needed in Africa to advocate for the role.

**Significance:** There is interest in and support for the APN role in Africa and the role has been implemented in many countries. Full implementation, however, has been uneven. In areas where education, practice and policy are not aligned, data informed locally relevant value-propositions can convince educators and policy makers of the value-added of the APN role in achieving the national UHC and health equity goals.

## 10.4 Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

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### Assessing the Efficacy of a Nurse Practitioner-Led Interdisciplinary Chronic Pain Program: A Mixed Methods Study

**Sarah Slack<sup>1</sup>**, Jennifer Clement<sup>1</sup>

<sup>1</sup>Sudbury District Nurse Practitioner Clinics, Sudbury, Canada

**Background:** Chronic pain is a persistent healthcare challenge demanding innovative, patient-centric solutions. The Nurse Practitioner-Led Clinic (NPLC) pioneers a chronic pain program utilizing a multidisciplinary team approach, emphasizing the nervous system's role in joint stability, muscle tension, and functional movement. Nurse practitioners play a pivotal role in patient identification, with registered nurses conducting pre-pain assessments before patients embark on a 10-week movement-based program alongside somatic therapists.

**Objectives:** This study evaluates the effectiveness of the NPLC's interdisciplinary chronic pain program. Objectives include assessing changes in pain scales, exploring patient experiences, and emphasizing the significance of interdisciplinary care in chronic pain management.

**Methods or Approach:** Using a mixed-methods design, this study quantifies changes in patients' pain levels through pain assessments, including a brief pain inventory survey. Qualitative insights from patient interviews offer a nuanced understanding of the program's impact. The interdisciplinary approach involves collaboration between nurse practitioners, registered nurses, and somatic therapists.

**Key Learnings or Results:** Preliminary findings reveal a significant improvement in pain scale data post-program. Patients completed a brief pain inventory survey, showing enhancements in general activity and mood, with 60% reporting decreased pain after program completion. The success is attributed to the program's interdisciplinary nature. Qualitative insights enrich our comprehension of holistic chronic pain management.

**Conclusion:** The NPLC's interdisciplinary chronic pain program demonstrates promising outcomes, aligning with patient-centered principles. Starting with nurse practitioners identifying patients, the model accentuates movement and neuro-education, redefining chronic pain management in primary care.

**Significance (Impact and Reach):** This study's outcomes hold considerable implications for primary care chronic pain management, showcasing the effectiveness of interdisciplinary programs and integrating patient-reported outcomes. The research enriches healthcare practices, potentially driving wider adoption of similar patient-centric models, aiming to enhance the quality of life for chronic pain patients and empower primary care providers addressing this pervasive health challenge.



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### Whole Person Model of Care Delivery; Primary Care Integrated with Mental Health NP Preparation

**Dr Mary Dirks<sup>1</sup>**, **Dr Tess Judge-Ellis<sup>1</sup>**

<sup>1</sup>The University of Iowa College of Nursing, Iowa City, United States

**Background:** Countries are seeking to contain healthcare costs while meeting mental health and comorbid chronic conditions accounting for 50% of expenditures. Patient-centered coordinated care models have become a priority, particularly in rural and poor access to care areas with severe provider shortages. Nurse practitioners (NPs) provide high quality, cost-effective care, typically prepared for care of one patient population. Whole person care (WPC) is an emerging, innovative, patient-centered, integrative approach to providing high quality primary and mental health care by the same provider.

**Objectives:**

- Explain access to care issues for patients with complex primary and mental health conditions.
- Describe content areas included in an integrated WPC course.
- Identify clinical competencies needed to provide WPC.

**Methods and Approach:** A distinct integrative WPC course and practicum offering were created. A cohort of seven students took the 12-week course and completed 90 clinical practicum hours with dual primary care and psych mental health NP preceptors in WPC settings.

**Key Results:** WPC integrated care course and practicum experience evaluations resulted in a median score of 5.8 out of 6.0. Qualitative thematic analysis revealed 'better appreciation of the temporality of health conditions, increased consideration of social determinants of care, and better understanding of resource availability'.

Conclusion: NP preparation to provide WPC is a new concept resulting in a provider mindset shift. NPs are ideally suited to provide WPC because they view patients as whole individuals who are part of a family, community, and environment.

Significance: NPs are a source for quality, affordable, and trustworthy healthcare and are recognized for their expertise in preventive care. They are also highly effective at enhancing the patient experience, improving patient outcomes, and decreasing cost for complex patients. WPC is critical for improving health outcomes from a multisystem, multidimensional approach to care coordination of multiple determinants of health.



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### **The impact of the Advanced Nurse Practitioner on people living with frailty in rural areas**

**Maria Betts**<sup>1</sup>

<sup>1</sup>University of Ulster, Belfast, Northern Ireland, <sup>2</sup>Northern Health and Social Care Trust, Antrim, Northern Ireland

Background: Frailty is a multidimensional condition with syndromes relating to falls, immobility, incontinence, impaired memory and medication side-effects. With increasing numbers of frailty, particularly in rural areas, healthcare systems are being challenged globally. Moreover, frailty may be more common in rural communities as a consequence of transportation issues, limited access to healthcare services and health promotion activities. ANPs are ideally placed to undertake comprehensive geriatric assessments (CGA) and identify frailty syndromes.

Objectives: Explore the function of the ANP in managing people living with frailty in rural areas, considering public health agendas and evidence-based practice.

Methods or Approach: The aim is to explore the literature to determine the value of the ANP in managing frailty for people living in rural areas.

Key learnings: Frailty is linked to poorer health outcomes, an excessive use of health resources and decreased quality of life when compared to the non-frail population. Research indicates that incorporating ANPs into integrated models of care and health improvement strategies, improves patient outcomes.

Conclusion: Using advanced clinical and decision-making skills, ANPs deliver evidence-based care to improve patient safety and health outcomes. Creating partnerships to enhance the provision of healthcare, they are focused on frailty prevention, detection and providing appropriate support, and the development of co-produced management plans to address individualised needs. The ANP within district nursing has the ability to practice autonomously within an expanded scope of clinical practice, making them the ideal professional to support people living with frailty in rural areas.

Significance: When thinking about future strategies for advanced practice, it is important to acknowledge the lack of regulation, inadequate title protection, role variability, and different educational requirements. Organisations need to consider the enablers and barriers of ANPs fulfilling their duties. ANPs are guided by public health agendas to improve the population health of those in rural areas.



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### **Cultivating Innovation in Healthcare: Creating a Nurse Practitioner Clinician Scientist Role**

**Sarah Crowe**<sup>1</sup>, Dr Laura Housden<sup>1</sup>

<sup>1</sup>Fraser Health, Surrey, Canada

Background: As healthcare evolves, the need for innovation becomes paramount. Nurse practitioners (NPs) play a pivotal role in patient care, yet their potential as clinician scientists remains largely untapped. This abstract explores the novel concept of introducing a Nurse Practitioner Clinician Scientist (NPCS) role within the health sector to bridge the gap between clinical expertise and research.

Objective: This presentation will outline the NPCS role, emphasizing its potential to revolutionize healthcare by integrating advanced clinical skills with a strong research foundation. By fostering a culture of inquiry among NPs, this initiative aims to enhance evidence-based practice and contribute to the generation of new knowledge within the field.

Approach: The presentation will discuss the development and implementation of the NPCS role, highlighting the educational and training requirements. It will emphasize the synergy between clinical practice and scientific inquiry, showcasing how NPs can engage in research while maintaining their clinical responsibilities.

Learnings: Preliminary findings indicate that introducing the NPCS role positively impacts NPs in Fraser Health. The NP department is demonstrating increased engagement and productivity with research and scholarship activities with the NPSC's support and mentorship. The presentation will share specific examples of successful NPCS initiatives and the impact on both individual practice and the broader healthcare system.



Conclusion: The integration of the NPCS role represents a groundbreaking step towards cultivating innovation in healthcare. By empowering NPs to actively participate in both clinical practice and research, we can enhance the quality of patient care and drive advancements in evidence-based practice.

Significance: This presentation is significant as it introduces a transformative model that maximizes NP potential, fostering collaboration between clinical practice and research. The NPCS role not only benefits individual practitioners but also contributes to the evolution of healthcare as a whole, positioning NPs as key drivers of innovation in the field.



## 10.5 APN's Role in Shaping a Healthier, More Equitable World

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### **An Interprofessional Collaborative Practice (IPCP) Model of Primary Care in a Nurse-Led Health Center**

**Dr Linda McMurry<sup>1</sup>, Christie Hust<sup>1</sup>, Dr M. Christina Esperat<sup>1</sup>**

<sup>1</sup>Texas Tech University Health Sciences Center, Lubbock, United States

Background: A nurse-led federally-qualified health center (FQHC) applies an IPCP model to develop, implement and evaluate critical programs that provide care to economically and medically vulnerable patients in West Texas.

Objectives:

Discuss evidence supporting application of IPCP to improve health care delivery among underserved populations

Analyze the TeamSTEPPS® framework for IPCP in primary care

Describe the process of initiating and sustaining the TeamSTEPPS® framework in advanced practice nursing

Present evaluation of the application of the TeamSTEPPS® framework in team care and clinical outcomes

Methods: Through TeamSTEPPS® framework, IPCP services are delivered to underserved populations experiencing chronic disease to reduce cardiovascular risk, provides integrated behavioral care services to center patients, and delivers care through patient navigation by Community Health Workers (CHW). The IPCP team is trained in the TeamSTEPPS® model, and consists of APRNs, Social Workers, Pharmacists, Licensed Behavioral Therapists, Clinical Psychologists, CHWs, and nursing students who rotate for longitudinal and episodic rotations. Daily team huddles are held, and regular bi-monthly IPCP meetings are conducted to discuss patients who present challenges in management and care delivery. All members participate in the IPCP discussions of patient management challenges.

Key Learnings or Results: Trainings for TeamSTEPPS® are conducted for team members, and refresher training on a regular basis. Application and evaluation of the framework is conducted using a six-week staging process wherein knowledge, skills, and attitudes are developed and evaluated. Standardized measurement tools are used to measure TeamSTEPPS® competencies.

Conclusion: Positive results, quantitative as well as qualitative, have been demonstrated in the analyses of data collected through the first three years of the TeamSTEPPS® implementation.

Significance: Now almost ten years from its initiation, the model has proven not only effective in the achievement of improved care to medically underserved populations, but also eminently sustainable as a framework for advanced primary care nurse practice.



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### **The Competency of Inter-Professional Collaboration in a Nurse Practitioner-Led Clinic**

**Dr Karen Clayton-Babb<sup>1</sup>**

<sup>1</sup>Belleville Nurse Practitioner-Led Clinic, Belleville, Canada

Background: The complexity of patient healthcare needs requires an inter professional model of care to ensure positive health outcomes. As a result, Nurse Practitioner-Led Clinics (NPLC) have been established in some jurisdiction to ensure patients are provided quality care through inter-professional collaboration

Objective: The purpose of this paper is to evaluate the level of competency for effective inter-professional collaboration in a NPLC.

Methods: The methods that were employed are non-participant observation of an inter-professional team with nurse practitioners as the most responsible providers and other allied healthcare professionals. The Canadian National Interprofessional Competency (CNIC) Framework, 2010 was applied to evaluate the competency of the interprofessional collaborative.

Results:

The NPLC team was assessed in the six domains of the CNIC.

Role clarification: high level of understanding of each professional's role in the team. Each professional worked to full scope and everyone respected individual's expertise and seamlessly collaborate to ensure patients received right care from the right provider.

Patient client, family, and community centred care: reflected in past patient satisfaction surveys that consistently show that 97% of patients interviewed felt they were heard and involved in the care plan.

Team Functioning: a high functioning team through the awareness of and commitment to the organisations values of respect and professionalism and a supportive and harmonious environment.

Interprofessional Conflict Resolution: a strategy is in place to collaboratively resolve conflict, which is an agenda item on all team meetings.

Interprofessional Communication and Collaborative Leadership: communication is effective through a variety of agreed strategies and leadership is distributed.

Conclusion: The NPLC displays an interprofessional collaboration competency that is effective for the delivery of complex care and to ensure quality health outcomes

Significance: The findings have global implications, since health systems are considering various types of interprofessional collaborative to provide quality care for patients with complex needs.



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### **Acute Care International Clinical Experiences: Bringing Home Perspectives On Global Health and Culturally Competent Care**

**Dr Raymond Blush<sup>1</sup>, Dr Deborah Lee<sup>1</sup>**

<sup>1</sup>University of Michigan School of Nursing, Ann Arbor, United States, <sup>2</sup>ICN/NP/APN Network Steering Committee Member,

BACKGROUND: Currently there are no known AGACNP programs that offer international opportunities for clinical experiences for the AGACNP student in the US. In an effort to enhance possibilities for enhanced clinical experiences, particularly those that highlight culturally competent care, and an appreciation of delivery of care in systems where utilization of recourses may be diminished, this program has developed an opportunity for clinical encounters in a large, urban, academic hospital in Bangkok Thailand. These clinical encounters have provided the student a opportunity to appreciate the aspects of delivery of care that both are similar and different from care domestically and how an appreciation of not just clinical management, but the process of care delivery can be impacted. The student has also been able to focus on much broader issues like population health, and process delivery from a population, health system, and setting specific perspective. Additionally understanding how global perspectives influence the AGACNP role beyond specific patients but can benefit the discipline and patents broadly.

OBJECTIVES: The goal of this presentation will be to outline the process of development of this encounter. It will describe both the administrative and academic perspective and the work that went into arranging the clinical opportunity. Items also specifically to be discussed include ensuring the clinical experience alignment with competencies, and student and academic goals.

APPROACH: Several cohorts that have participated in this program. Retrospective reflection of the experience from both the students' and faculty perspective demonstrates the impact and will be discussed including cultural intelligence. Discussion will involve patient and student outcomes related to global health.

CONCLUSION/SIGNIFICANCE: The presentation will be beneficial for faculty interested in global heath perspectives, program leads who may be considering such an experience, and for any faculty who are looking to enhance their students' clinical experiences across many domains.



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### **Addressing Health Inequities content in a Nurse Practitioner curriculum: Threading Social Determinants of Health across courses**

**Dr Margaret Bowers<sup>1</sup>**

<sup>1</sup>Duke University School of Nursing And Duke Health, Durham, United States of America

Background: The World Health Organization's Healthy People 2030 framework guided the integration of social determinants of health (SDOH) into a nurse practitioner (NP) curriculum. One of the goals of the framework is to achieve health equity and eliminate disparities to improve health. This goal aligns with the mission of the school by "ending health inequities through transformative excellence in education, clinical practice and nursing science."

Objectives: Review WHO Healthy People 2030 framework focusing on health equity.

Describe how to integrate content and assignments addressing SDOH across eight NP majors into three courses.

Approach: Three NP Intensive courses offered virtually are required for students in eight NP majors at a School of Nursing. Students listen to lectures and podcasts to prepare for a synchronous session to engage with clinical experts and have an active dialogue. Key topics related to SDOH include: Gender affirming care, climate change, cultural intelligence part I-III and vulnerable populations.

Key learnings: As NP students' progress through their clinical courses they complete SDOH assignments and activities which allow them to reflect, analyze and apply content to clinical encounters in a timely manner.

Conclusion: Course evaluations indicate that 90% of the students either agreed or strongly agreed that this content allowed them to recognize cultural, racial, ethnic, gender and social issues and how they impact health.

Significance: The integration of social determinants of health in NP programs is a crucial step toward preparing NP students for clinical rotations and transition to practice focused on promoting health equity.



## 11.1 Clinical Workshop: The Art and Science of Advanced Practice Nursing Innovation

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**Jane Hartman<sup>1</sup>**

<sup>1</sup>Cleveland Clinic Children's, Cleveland, United States

The intersection of Advanced Practice Nursing (APN) innovation and research is required if we are to do both well. Evidence-based practice is essential to our APN practice, researching one's own innovations/inventions provides evidence from idea creation, establishes validity and reliability and is useful to clinical practice from the outset, contributing to the body of work in this sphere.

Identify the important crossroads of APN innovation and clinical practice.

Gain confidence in APN's ability to innovate.

Participants will experience firsthand an APN inventor's navigation through the process of innovating two ideas, focusing on interprofessional collaboration and scientific evidence related to each invention. Inventions include a Pediatric Peripheral Vascular Access Algorithm (PPVAA) that guides nurses to achieve first attempt vascular access success and an IV-Carriage-System, designed to solve a clinical safety dilemma of hospitalized children by promoting safe ambulation. This innovation was recently identified as a Magnet Exemplar during our redesignation.

Healthcare innovation is a "hot- topic," however, APNs do not consider themselves inventors and are paralyzed in moving their ideas forward. It is essential for the nursing profession to change this paradigm and cultivate a culture of innovation through mentorship and interprofessional collaboration. Passion for APN innovation will be evident throughout the presentation, inspiring creativity, curiosity and excitement.

It is important to advance APN innovation science, which is instrumental in harm reduction practice, and contributes to the enhanced knowledge base of APNs and clinical nurses. It is equally important to ease nurse's burden and guide decision making, resulting in the provision of safe, effective and high-quality patient care.

PPVAA and IV-Carriage-System research has been disseminated globally via peer reviewed journals, with PPVAA research cited in the Infusion Nursing Society's 2021 Standards of Practice. The IV-Carriage-System has been licensed by a major medical corporation and is currently in Federal Drug Administration approval.



## 11.2 Symposium: International collaborative solutions to Advanced Practice education

NPAPN24015

Convenors: Sonya Stone<sup>1</sup>, Mara Sprengel-Smith<sup>1</sup>, Dr Catherine Tierney<sup>2</sup>, Lori Brien<sup>2</sup>, Kelly Thompson-Brazill<sup>2</sup>, Dr Abbye Solis<sup>2</sup>, Dr Bryan Boling<sup>2</sup>

<sup>1</sup>University of Nottingham, <sup>2</sup>Georgetown University

**Purpose:** The purpose of this symposium is to understand the international models of education of advanced practice providers (APP), novel approaches to experiential learning, and barriers to Advanced Practice through an international partnership between the University of Nottingham, UK and Georgetown University, US. Attendees will benefit from this partnership which produces sound pedagogical approaches to shape the curriculum of both Georgetown University School of Nursing's (GUSON) AG-ACNP Program and the University of Nottingham's Advanced Clinical Practice Program, to improve the care of acute and critically ill adult and older adult patients in both countries.

**Objective:**

- To understand the evolution of the role of the APP in the US and the UK
- To compare and contrast the role of the APP in each country including the educational requirements and scope of practice
- To compare the educational preparation of APPs in the UK and US
- To learn about innovative teaching strategies used to educate APPs in the UK and US
- To discuss barriers to full APP practice in the UK and US
- To develop strategies for clinical preceptorships and assessment of clinical competence

**Rationale:** Health disparities, physician shortages, limited access to care and an ageing population are global healthcare problems. Advanced practice nurses across the world stand ready to fill these gaps in access to care. Barriers to full practice such as opposition from medical associations and state regulations are shared across the globe despite studies showing that NPs have comparable patient outcomes to physicians. Increasing needs for access to care and revelations of health disparities are also universal. Limited physician providers and increasing waits for critical services are shown to exist in public, private and mixed healthcare systems. In order to expedite care, solutions to these problems must be sought globally through collaboration with international partners. Strategies nursing educators are using to educate advanced practice providers ready to meet the healthcare needs of the future will be shared.

**Summary:** This symposium introduces attendees to the International collaboration between these two universities; demonstrating the value and potential impact on the education, practice and development of Advanced Practice roles internationally.

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### Educating Advanced Practice Providers: an International exploration

Sonya Stone<sup>1</sup>, Mara Sprengel-Smith<sup>1</sup>, Dr Catherine Tierney<sup>2</sup>, **Lori Brien**<sup>2</sup>, Kelly Thompson-Brazill<sup>2</sup>, Dr Abbye Solis<sup>2</sup>, Dr Bryan Boling<sup>2</sup>

<sup>1</sup>University of Nottingham, <sup>2</sup>Georgetown University

**Background:** Health disparities, physician shortages, access to care and an ageing population are global healthcare problems. Advanced practice providers (APPs) across the world stand ready to fill these gaps. Faculty from the University of Nottingham and Georgetown University have come together to examine similarities and differences in the healthcare systems, evolution of the advanced practice role, education and regulation of APPs and barriers to the education and practice of APPs in the UK and the US with a goal of creating a partnership between faculty and students on future research and quality improvement projects.

The evolution of the role of the APP in the UK and the US will be described. The educational and clinical practice requirements for program entry, courses of study, competencies, board certification examinations, licensure, and scope of practice will be explored.

**Objectives:**

1. Understand the evolution of the role of the APP in the US and the UK
2. Compare and contrast the role of the APP in each country including the educational requirements and scope of practice

**Methods:** Roundtable discussion includes an overview of the evolution of the APP role and educational preparation.

**Key learning:** Shape the curriculum of each university's program to improve the care of acutely ill adults  
Establish international partnerships and training programs to enrich the experiential education of all APPs.  
Result in collaborative projects which may inform and generate substantive health policy initiatives.

Conclusion: Advanced practice educators from UK and US participate in a discussion to compare strategies and share innovative approaches to the education of APPs. Knowledge learned will inform curriculum development, spark collaborative projects, promote advance practice research and support the growth of international advanced practice.

Significance: This international partnership plans to embark on future research and quality improvement projects aimed to meet global healthcare needs.

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### **Experiential learning: Exploring innovation in the UK and the US**

**Sonya Stone**<sup>1</sup>, Mara Sprengel-Smith<sup>1</sup>, Dr Catherine Tierney<sup>2</sup>, Lori Brien<sup>2</sup>, Kelly Thompson-Brazill<sup>2</sup>, Dr Abbye Solis<sup>2</sup>, Dr Bryan Boling<sup>2</sup>

<sup>1</sup>University of Nottingham, <sup>2</sup>Georgetown University

Background: Health disparities, physician shortages, limited access to care and an ageing population are global healthcare problems. Advanced practice providers (APPs) across the world stand ready to fill these gaps. Faculty from the University of Nottingham and Georgetown University have come together to examine similarities and differences in the healthcare systems, evolution of the advanced practice role, education and regulation of APPs and barriers to the education and practice of APPs in the UK and the US with a goal of creating an international partnership between faculty and students on future research and quality improvement projects.

Educational preparation and Innovative teaching methods will be highlighted and shared to improve the preparation of APPs globally.

Objectives:

1. Compare the educational preparation of APPs in the UK and US
2. Learn about innovative teaching strategies used to educate APPs.

Methods: Roundtable discussion includes an overview of the educational preparation of the APP and innovative teaching methods used in their education, followed by time to share innovative strategies for education and practice.

Key learning: Shape the curriculum of each university's program to improve the care of acutely ill adults  
Establish international partnerships and training programs to enrich the experiential education of all APPs.  
Result in collaborative projects which may inform and generate substantive health policy initiatives.

Conclusion: Advanced practice educators from UK and US participate in a roundtable discussion to compare strategies and share innovative approaches to the education of APPs. Knowledge learned will inform curriculum development, spark collaborative projects, promote advance practice research and support the growth of international advanced practice.

Significance: The goal of this international partnership between faculty and students is to embark on future research and quality improvement projects aimed to meet global healthcare needs.

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### **Barriers to Advanced Practice: Perspectives from the US and the UK**

Sonya Stone<sup>1</sup>, Mara Sprengel-Smith<sup>1</sup>, **Dr Catherine Tierney**<sup>2</sup>, Lori Brien<sup>2</sup>, Kelly Thompson-Brazill<sup>2</sup>, Dr Abbye Solis<sup>2</sup>, Dr Bryan Boling<sup>2</sup>

<sup>1</sup>University of Nottingham, <sup>2</sup>Georgetown University

Background: Health disparities, physician shortages, limited access to care and an ageing population are global healthcare problems. Advanced practice providers (APPs) across the world stand ready to fill these gaps. Faculty from the University of Nottingham and Georgetown University have come together to examine similarities and differences in the healthcare systems, evolution of the advanced practice role, education and regulation of APPs and barriers to the education and practice of APPs in the UK and the US with a goal of creating an international partnership between faculty and students on future research and quality improvement projects.

Barriers to full practice will be shared. Strategies for experiential learning and assessing clinical competence will be explored.

Objectives:

1. Discuss barriers to full APP practice
2. Develop strategies for clinical preceptorships and assessment of clinical competence

Methods or Approach: Roundtable discussion includes an overview of barriers to clinical practice and preceptorship, followed by time to share innovative strategies for experiential learning and assessment of clinical competence.

Key learnings: Shape the curriculum of each university's program to improve the care of acutely ill adults  
Establish international partnerships and training programs to enrich the experiential education of all APPs.  
Result in collaborative projects which may inform and generate substantive health policy initiatives.

Conclusion: Advanced practice educators from UK and US participate in a roundtable discussion to compare strategies and share innovative approaches to the education of APPs. Knowledge learned will inform curriculum development, spark collaborative projects, promote advance practice research and support the growth of international advanced practice.

Significance: The goal of this international partnership between faculty and students is to embark on future research and quality improvement projects aimed to meet global healthcare needs.





## 11.3 Symposium: Supporting Nurse Practitioners as they Transition from Academia to Practice

NPAPN24022

Convenor: TBC

**Purpose:** There were more than 36,000 new Nurse Practitioners who graduated from their academic programs in 2021 (NP Fact sheet). As of May 2022, there were an estimated 258,230 NPs currently working in the US; of that number, 220,332 were working in primary care. Navigating the intricate landscape of primary care in today's healthcare environment poses significant challenges for nurse practitioner (NP) students as they make the transition from academic programs to primary care practice. Studies have shown that up to 25% of NPs state they are burnt out, and many are leaving the profession. Providing a favourable environment that includes independent practice, good relationships with other colleagues, and feeling supported has increased resilience and decreased burnout by more than 50%. While there are a growing number of fellowships that exist to aid this transition, these programs for early-career NPs commence post-graduation. It is imperative to bolster new NP graduates, fostering both their professional and clinical growth while they are still students, and continue this support in the all-important first year of practice. This symposium will describe the development of a unique transition-to-practice program aimed at creating a supportive environment for new graduates. The importance of preventing burnout, promoting resilience, and increasing job satisfaction were explored and evaluated. Finally, a review of qualitative data from a current cohort of NP fellows describing the importance of the structure and support provided in a transition to practice program will be presented.

**Objective:** Describe the creation and implementation of a structured support program for new graduate NPs. Discuss the assessment tool used to evaluate levels of burnout, resilience, and job satisfaction and how this informed fellow success.

Explore the individual effects of a supportive transition to practice program on new primary care NPs

**Rationale:** Creating an environment that supports new graduates is essential to their professional growth. Gathering information and evaluating the program will insure the long term success of the NPs

**Summary:** A supportive environment for new nurse practitioners provides sustainability for the individual NP, their patients, clinical practices and the advanced practice workforce.

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### Creating a Support Structure for New Graduate Nurse Practitioners

#### Veronica Quattrini

University of Maryland School of Nursing

**Background:** While the emphasis on competencies ensures practice readiness, it may not fully equip graduates for the complexities of the primary care setting. Recognizing the need for targeted support, new NPs require mentoring and assistance as they shift from their previous registered nurse (RN) role to student and, finally, independent clinicians. Creating a framework for support of the fellow and their mentor increases success for the new graduate, the practice and better care for their patients

**Objectives:** Outline the structure created to provide support to NPs as they transition from academic to practice. Describe the specific aspects of the program aimed at increasing resilience, promoting job satisfaction and decreasing burnout

**Methods/Approach:** A task force of community leaders, practice partners, faculty, practicing NPs and students was convened to gather insights on best practices for seamlessly transitioning graduating NPs into primary care practice. A survey was developed to gather information on the transition to practice experienced by practicing NPs. A literature review on new provider education and a review of current onboarding practices across community practices was included in the planning process

**Key Learning/Results:** Evaluation of the data collected informed the structure of the fellowship to include didactic sessions based on individually identified participant needs, case study discussions, and group meetings to provide educational and emotional support. A dedicated team for each fellow included a practice-based mentor and a fellowship faculty member.

**Conclusion:** An individualized approach to learning coupled with support from academic and practice mentors creates an environment that promotes growth

**Significance:** This dedicated program prioritizes the growth and sustainability of fellows, mentors, and clinical practice partners. In an environment where burnout and dissatisfaction are high, a program that promotes mutual respect and support strengthens the advanced practice nurse workforce.

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## Best Practices to Assess Burnout and Resiliency in New Nurse Practitioner Fellows

### Marianne Fingerhood

Johns Hopkins University School of Nursing

Background: Nurse practitioners are in high demand in primary care with the primary care provider shortages, an aging population, and low healthcare resources in many patient care areas. The demands on NPs puts them at risk for burnout, lower productivity, stress, and poor professional growth. While a transition fellowship can make the adjustment to practice much smoother, it is imperative that steps are taken to assess and support new NPs to avoid negative sequelae and to build resilience. The first step is to assess the NP's status and adaptation to their new role.

Objectives: Identify assessment tools to measure burnout and resiliency in new NP fellows.  
Implement the assessment tools to identify strengths and areas needing support in the new NP fellows.

Methods/Approach: The literature was reviewed for assessment tools with the best evidence to capture information about burnout and resiliency. Three examples for assessment tools:  
CDRISC-The Connor-Davidson Resilience Scale in a full length 25-item version with briefer versions of 10 items and 2 items  
Maslach Burnout Inventory-Human Services Survey (MBI-HSS) for Medical Personnel is a well-researched and validated 22-item assessment  
Misener Nurse Practitioner Job Satisfaction Scale © is a reliable and valid instrument to measure job satisfaction among NPs. Modified to include primary care NPs after feedback and validation from NP faculty and Master's prepared NPs.

Key Learning/Results: Each of the first 3 cohorts has shown increased resilience, lower levels of burnout, and increased job satisfaction, as reflected in the survey results

Conclusion:  
The use of validated assessment tools can help to identify risk for burnout and NP fellows' capacity for resilience and guide mentors to support the novice NP.

Significance: With high burnout rates and risk for NPs leaving clinical sites, early identification of problems and support to empower new NP fellows can help prevent later problems.

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## Nurse Practitioner Fellows' Impressions of Transition Support

Susan Renda  
Johns Hopkins University School of Nursing

Background: Many medical professionals receive additional training through postgraduate residencies and fellowships. However, most nurse practitioner (NP) graduates are directly placed in practice as independent clinicians upon graduation. This rapid transition can cause significant stress. The role transition requires confidence, skill mastery, and the ability to adapt to practice demands. The goal for a novice NP is to transition to practice smoothly while developing a sense of self-efficacy, avoiding the risk of burnout or leaving a practice setting.

Objectives: Conduct a survey to explore the NP fellows' impressions of a transition to practice fellowship.  
Solicit fellows' feedback on support and program improvement with the fellowship.

Methods/Approach: A seven open-ended question survey was developed and administered to NP fellows engaged in a transition to practice fellowship. The survey contained questions about what fellows found most helpful, pros and cons of starting practice following their final school clinical experience in the same practice setting, support from other fellows in the program, and how they see scholarly learning applied to practice.

Key Learning/Results: The responses were consistent, noting that the fellowship provides support. Positive comments included the ability to have shared decision-making, preceptor support in the clinical setting, a slower pace of advancing the patient schedule, and the ability to share with other fellows.  
The majority of fellows would "very likely" recommend the program for future graduates.  
Suggestions included more skills training, guest lectures, and increased opportunities to discuss patient cases.

Conclusion: New NPs benefit from a transition to practice fellowship.

Significance: NP fellowship programs have the ability to strengthen the bridge from academics to practice. Self-efficacy, skill mastery, and job satisfaction can grow with proper support and mentored transition to practice.

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## 11.4 Investing in the APN Health Workforce

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### Healthcare professionals' perceptions towards practice pattern and role of ward-based Advanced Practice Nurses

**Xueli, Shayna Lin**<sup>1</sup>, See Woon Tan, Kwang Hwee, Marcus Ang, Ms Hwee Yi, Stella Wang, Doctorate Brigette Lin, Doctorate Sivagame Maniya

<sup>1</sup>Sengkang General hospital, Singapore, Singapore, <sup>2</sup>Sengkang General Hospital, Singapore, Singapore, <sup>3</sup>Sengkang General Hospital, Singapore, Singapore, <sup>4</sup>Sengkang General Hospital, Singapore, Singapore, <sup>5</sup>Sengkang General Hospita, Singapore, Singapore, <sup>6</sup>Alice Lee Centre for Nursing Studies, National University of Singapore, Singapore, Singapore

**Background:** The role of APNs in inpatient settings was recently developed in Singapore. However, the general understanding of role description of a ward-based APN among healthcare professionals is vague leading to challenges in developing clinical outcomes. In Singapore, there is no study on the perceived role of a ward-based APNs and their impact on patient care.

**Objectives:** 1. To explore the perceptions of physicians, registered nurses (RN) and allied health professionals (AHP) towards the role of ward-based advanced practice nurse (APN).  
2. To examine healthcare professionals' perception of APN role expansion in inpatient care.

**Methods:** A 46-item online survey comprising of 5 domains was conducted on healthcare professionals' perceptions towards ward-based APNs in a national hospital from November 2022 to February 2023. The participants were recruited using convenience sampling via email and cross-platform messaging service.

**Results:** There were 181 completed respondents; 26 physicians, 102 nurses and 45 AHPs in this cross sectional study. APNs were perceived to be spending a great extent of time across all five domains, namely 'direct comprehensive care' (median 4, IQR 4 - 4), 'support of systems' (median 4, IQR 4 - 4), 'research' (median 4, IQR 3 - 4), 'education' (median 4, IQR 4 -5), and 'publication and professional leadership' (median 4, IQR 3 - 4). Participants' views were divided when rated the most important APN clinical activity.

**Conclusion:** APNs' role in the ward are perceived positively. However, there are divided views on key clinical activities that APNs should undertake, suggesting a lack of role clarity.

**Significance:** APNs are expected to have strong involvement in all areas, hence this study strengthened support for inpatient APN role. Leaders and administrators can consider increasing awareness of APNs' role and scope of duties can be crafted according to specific discipline with a focus on the educator role.



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### Practice patterns, role and impact of advanced practice nurses in stroke care: A mixed-methods systematic review

**Dr Brigitte Woo**<sup>1</sup>, Dr Wai May Ng<sup>2</sup>, Ms Il Fan Tan<sup>2</sup>, Dr Wentao Zhou<sup>1</sup>

<sup>1</sup>National University of Singapore, Singapore, Singapore, <sup>2</sup>National Neuroscience Institute, Singapore, Singapore

**Background:** Stroke imposes a substantial care burden on the healthcare system, necessitating timely diagnosis, intervention, and comprehensive stroke care. Nurse-led protocols for managing the acute phase of stroke have contributed to lowered mortality and sustained enhancements in patient outcomes. Models of care for stroke have evolved to be less physician-centric, endowing Advanced Practice Nurses (APNs) with greater autonomy to helm inpatient care. However, there is persistent ambiguity about their roles among various stakeholders.

**Objectives:** To conduct a systematic review of APNs' practice patterns in inpatient and outpatient stroke care; and evaluate the impact of APN-led stroke care on clinical and patient-reported outcomes.

**Methods:** Followed PRISMA guidelines in a mixed-methods systematic review. A systematic search was conducted across six electronic databases for primary studies published between the inception of the databases and 3 November 2022. Data synthesis utilised a convergent integrated approach.

**Results:** Findings based on the 18 included primary studies indicate that the APNs' roles have been implemented across the continuum of stroke care, including pre-intervention care, inpatient care, and post-discharge care. Practicing at an advanced level, the APNs engaged in clinical, operational, and educational undertakings across services and disciplines. Positive clinical and patient-reported outcomes have been attributed to their practice.

Conclusion: APNs significantly enhance stroke care, particularly in the pre-intervention phase, leveraging clinical expertise, patient-centered approaches, and interdisciplinary collaboration. Integrating APNs into stroke care teams is crucial for improved management and outcomes amid the rising stroke burden.

Significance: This review addresses the persistent role ambiguity of APNs and aims to inform healthcare policymakers. Insights gleaned are expected to guide the implementation and evaluation of APN roles in stroke care. The synthesis of evidence underscores the diverse APN-led stroke care services and their impact on patients throughout the stroke care trajectory.



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### **Investing in the future Critical Care ANP - The experiences of an Advanced Critical Care Nursing Practice student through a new ANP in Critical Care programme in Northern Ireland**

**Gerard Quinn**<sup>1</sup>, Prof Michael Brown

<sup>1</sup>Belfast Health and Social Care Trust, Belfast, United Kingdom

The aim of this presentation is to present an overview of the experiences of undertaking a new ACCP (Advanced Critical Care Practitioner) programme in Northern Ireland. There has been growing recognition internationally of the benefits derived from developing Advanced Nurse Practice roles. With the increasing development of ANP roles globally, Northern Ireland adopted a regional-wide approach to all ANP role development. As part of these developments a new ACCP programme focusing on the role in intensive care was commissioned by the Department of Health. The author is part of the first cohort of ACCPs due to graduate in December 2024 and take up the first roles across intensive care settings in Northern Ireland.

This presentation will present an overview of the key elements of the new ACCP programme and the relationship with skills acquisition and simulation and the application to the realities of practice in the intensive care setting and experiences of a trainee ACCP completing the programme at Queen's University Belfast. The knowledge development on the programme was a significant jump as part of the preparation for the ACCP role. Skills simulation was effective in building confidence and understanding regarding the scope and extent of the ACCP role in intensive care. The practice assessment portfolio provided a clear framework to support learning with an opportunity for further personal development of clinical skills.

The learning journey as a trainee ACCP has been monumental regarding knowledge and skills development over the two-years of the programme. As the end of the formal programme comes to an end with the transition from trainee to ACCP imminent and the realities of the scope and extent of the role loom, there is the recognition that learning will be on-going to grow and develop competence within the ACCP role.



800

### **Data-Based Decision Making for the Advanced Practice Workforce: Leveraging information to meet the needs of the patients**

**William Lombardi**<sup>1</sup>

<sup>1</sup>Uva Health, Charlottesville, United States

Background: The impact of advanced practice on the healthcare system is often not well understood due to a paucity of data. This can be due to a lack of adequate data streams, inaccurate attribution of work, or misinterpretation of information. Creating meaningful data streams with a consistent interpretation methodology can assist advanced practice leaders and healthcare organizations in managing their workforce.

Objectives: Primary objectives are to identify reliable sources of available data, create data queries that reflect the outcomes metrics of advanced practice workers, and use the data to address the common workforce management questions leaders face.

Approach: Identification of the common questions leaders need to answer when making decisions regarding workforce utilization. Creation of a data dashboard in collaboration with data scientists addressing these questions and displaying data that is easily consumed and filtered. Building competence in leaders to use this data in a standardized way to understand practitioner utilization and demand.

Key learnings: Key learnings include creation of system-wide advanced practice database, standardized approach to requests for workforce growth, understanding of current practitioner utilization with the ability to provide focused support for under-performing practitioners, and increase in provider productivity as seen patient encounter volume and revenue generation.

Conclusion: The strategic use of data to manage the growing advanced practice workforce ensures effective stewardship of resources and supports top-of-scope practice. Advanced practice leaders need to develop competence in the information available to them in healthcare systems, and develop standardized methods of data utilization to support decisions.

Significance: As healthcare resources become constrained, ensuring optimal utilization of the advanced practice workforce will support efficiency in care while maintaining high quality outcomes. The advanced practice leader must be confident in their ability to support their teams by displaying their impact on their healthcare system.



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### **Advanced Practice Nurses in German hospitals - tasks, job satisfaction and retention: A survey in 22 innovative hospitals**

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Background: Germany is in early stages of APN implementation with no respective national regulation. Few innovative hospitals exist, most of which are university hospitals with a longer routine in implementing APN, their lessons are relevant for nationwide implementation. Currently, APN role legislation and implementation are on the agenda of German health policymakers.

Objectives: Analysing APN roles, job satisfaction and factors influencing retention in comparison to nurses in German hospitals with higher than average academic nursing staff and innovative implementation strategies in place.

Methods: Mixed-methods study, including a survey among nurses with 3-year diploma, BSN and APN degree in 22 German innovative hospitals in 2023. Descriptive and bivariate analyses comparing APN with nurses (subsuming diploma nurses and BSN).

Results: A total of 1.376 nurses (age 38.5 years, 79.1% female) participated, of which 52 APNs from 16 hospitals. APN-specific roles covered nursing practice projects (performed by 61.5% APNs vs. 7.2% nurses;  $p < 0.001$ ), leading (interprofessional) meetings (67.3% vs. 8.1%;  $p < 0.001$ ), and training of nurses (74.5% vs. 35.1%;  $p < 0.001$ ). The majority of APNs (76.9%) reported to use 75%-100% of their educational knowledge. APNs reported more often than nurses that financial support and time release exists for professional development (42.3% vs. 24.1%;  $p = 0.003$ ). Overall, APNs were more satisfied with the current job than nurses (42.3% vs. 11.6%,  $p < 0.001$ ) and reported less often intention-to-leave the hospital (17.3% vs. 45.4%;  $p < 0.001$ ). Higher remuneration was an important topic for APNs to increase retention.

Conclusion: Innovative hospitals have implemented strategies and roles for APNs who are overall satisfied with their position, organisational support for professional development, except for levels of remuneration.

Significance: Hospital managers and policymaker can learn from good practice examples on APN roles and support in Germany in addition to international experiences. Strategies for all nurses are required to increase job satisfaction and retention.



## 11.5 Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

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### Exploring Nurse Practitioner Faculty's Perspectives and Attitudes Regarding the Use of Virtual Simulations as an Educational Strategy

**Dr Erin Ziegler<sup>1</sup>**, Dr Gina Pittman<sup>2</sup>, Dr Sherry Morrell<sup>2</sup>

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**Background:** The purpose of this study is to use an internet-based survey along with open-ended semi-structured interviews to examine faculty's perspective and attitudes in nurse practitioner (NP) programs regarding virtual simulation (VS) and the facilitators and barriers to the acceptance and use as an educational strategy.

**Objectives:**

1. To examine perspectives and attitudes of NP faculty regarding their intended acceptance and use of VS as an educational strategy.
2. To improve understanding of the pedagogical adaptation and curricular integration of VS to help prepare NP students for clinical practice.

**Methods:** This was a multi-phase, mixed methods study. Phase 1 - Internet-based survey using purposeful sampling to recruit faculty from North America who teach in graduate NP programs. Phase 2 - Individuals from Phase 1 were invited to participate in one-on-one interviews. Quantitative data was analyzed using SPSS. Qualitative content analysis was used to analyze the interview data.

**Results:** Recruitment for this study closed December 31, 2023. 40 surveys and 15 interviews were completed. Data is currently being analyzed.

**Conclusion-** This research could improve understanding of the pedagogical adaptation and curricular integration of VS to help prepare NP students for clinical practice and guide NP faculty to integrate VS into curricula.

**Significance:** While the uptake of simulation has been good within undergraduate nursing programs, there is still a lack of simulation within the graduate nursing program and specifically the NP programs. Literature is demonstrating that graduate nursing students find simulation-based learning a positive experience, however there continues to be limited simulations opportunities. Findings from this study will impact nursing education by providing an understanding of the willingness and acceptability of NP faculty to use VS in the curriculum. Furthermore, understanding the barriers and facilitators to using VS in NP education will help develop strategies to address these issues.



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### Reforming Health Outcomes through a Competency-Based Approach to Nursing Education

**Dr Susan Corbridge<sup>1</sup>**

<sup>1</sup>American Association of Colleges of Nursing, Washington, DC, United States

**Background:** In April 2021, U.S. nursing schools affiliated with the American Association of Colleges of Nursing (AACN) endorsed a forward approach for educating nurses for entry- and advanced-level roles as outlined in The Essentials: Core Competencies for Professional Nursing Education. Implementing the Essentials provides academic and practice leaders with a unique opportunity to reevaluate how to best prepare the nursing workforce, including advanced practice nurses, and reshape the future of health care by focusing on student-centered modalities.

**Objectives:** This presentation will share best practices for implementing the AACN Essentials and transitioning to competency-based education in advanced practice nursing programs across the U.S. and globally.

**Methods:** The AACN Essentials call for a competency-based approach to preparing nurses, which involves a new system of education built on individual students demonstrating that they possess the knowledge, attitudes, motivations, self-perceptions, and skills expected of them as they embark on their journey through nursing school. Embedded within the Essentials are expectations for nurses to develop and demonstrate competencies essential for addressing critical healthcare challenges, including delivering care that integrates the social determinants of health and leading initiatives for health equity.

**Significance:** By ensuring that all nurses graduate with a uniform set of recognizable competencies, this approach facilitates a clearer understanding for employers and the public regarding the capabilities of advanced practice nurses and assures that patients receive an equitable healthcare experience. Academic leaders in the U.S. believe this approach to nursing education will enhance the practice readiness of graduates, strengthen nursing's professional

identity, and enhance the ability of nurses and advanced practice nurses to achieve optimal outcomes across the continuum of healthcare.

1445

### **Stakeholders views on APN workforce contribution to Chilean Health Reform: Building the Evidence**

**Consuelo Cerón**<sup>1,2</sup>, Denisse Bryant-Lukosius<sup>1</sup>

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Background: Worldwide, a major obstacle to optimal development and contribution of advanced practice nursing (APN) roles is the limited nurses' participation in policy making. Chile is no exception, and this has meant that APN roles have not been considered as a policy solution to address the priorities of primary health care (PHC) reform. This presentation describes the results of a stakeholder forum designed to address these policy gaps by initiating a dialogue between nurse leaders and health policy and decision-makers on the APN roles introduction in Chilean PHC.

Aim: To identify stakeholder perceptions on policy priorities for promoting the introduction of APN roles in PHC in Chile.

Methods: Invited stakeholders participated in a facilitated discussion forum to identify health system needs and policies regarding APN roles in PHC, using a labor market lens. Participants responded to focused questions in small groups, followed by large group discussion. Recorded notes from the small and large group discussions underwent content analysis to identify major ideas.

Findings: Stakeholders (n=34) participated in the forum. Opportunities for APN roles implementation regarding health system and population health needs were identified. Perceived barriers to APN roles implementation included lack of access to and funding for graduate nursing programs. As well as limited recognition in terms of salary increases and/or job opportunities. Policy solutions to promote the recruitment/retention of nurses and update national health legislation to align with expanded roles like APN roles was highlighted. Comprehensive nursing workforce planning was recommended, and next steps were identified to facilitate policy development related to APN roles.

Conclusion/Significance: The findings underscore the challenging yet valuable nature of nursing involvement in policy discussions and stakeholder engagement. This effort is essential for placing APN on the policy agenda and advancing the development of policies that support optimal APN roles integration/implementation within the healthcare system.

1155

### **A New Model for Nurse Practitioner Regulation**

**Dr Marcie Smigorowsky**<sup>2,1</sup>, Mr. Andrew Douglas<sup>2</sup>

<sup>1</sup>University of Alberta, Edmonton, Canada, <sup>2</sup>College of Registered Nurses of Alberta, Edmonton, Canada

Background: Healthcare delivery is the responsibility of Canadian provincial and territorial governments. Individual jurisdictions have legislation for the self-regulation of nurse practitioners (NPs) which, in Alberta, regulation is by the College of Registered Nurses of Alberta (CRNA). Provincial and territory regulators for registered nurses and NPs, formed the Canadian Council of Registered Nurse Regulators (CCRNR) for consistent nursing regulation in Canada. CCRNR initiated changes to NP regulation leading the CRNA to develop a new right touch model for NP regulation. In Alberta, NPs were regulated differently and utilized in specialty practice more extensively.

Changes to NP regulation impacts not only regulators and how they regulate, but also NPs, post-secondary education institutes who provide entry level education, employers who hire NPs and are responsible for the provision of patient care, and the public who receive the care. All of these touch points need to be systematically assessed to ensure the transition to the new model of regulation.

Objectives: Participants will:

1. Understand changes to NP regulation
2. Review considerations for developing a new model
3. Analyze evaluative factors that were effective and ineffective.

Approach: During this session, we will discuss changes with NP regulation and the approaches CRNA undertook to develop a new model.

Key Learnings: NP regulators are responsible to ensure patient safety by ensuring ethical, safe and competent care by NPs.

Consultation with external health partners is essential to developing a model for NP regulation to ultimately meet health needs of patients.

Conclusion: Changes to NP regulation cannot be made in isolation by the regulator. There are important interconnected relationships to consider to ensure a smooth transition. Ultimately, how the change is implemented has an impact on the delivery of patient care

Significance: Changes to NP regulation occurs, however, effectively addressing all interconnect factors will assist with transitioning successfully





**Transition from Staff Nurse to Primary Care Advanced Nurse Practitioner in NHS Lanarkshire**

**Stephanie Adam**<sup>1</sup>, Karyl Cahill<sup>1</sup>, Claire Robertson<sup>1</sup>, Amy McKendrick<sup>1</sup>

<sup>1</sup>NHS Lanarkshire, United Kingdom

Background: The roles of multidisciplinary health professionals have evolved and advanced in response to increasing demand on health services. In 2017, the Scottish Government initiated the Transforming Nursing, Midwifery and Health Professions' (NMaHP) Role's programme, to define and legitimise the role of Advanced Practitioners. NHS Lanarkshire (NHSL) Primary Care Team have adopted a standardised approach to Advanced Nurse Practitioner (ANP) Training in adherence to the Transforming Roles Programme.

Objectives: NHSL's approach ensures all components required for a nurse's transition to ANP are achieved, including academic modules, clinical experience and competency assurance. This approach produces autonomous practitioners who see, treat and discharge patients from age two. This ensures practitioners achieve competencies within the four pillars of advanced practice.

Methods/Approach

1. The training programme includes 3 central components;
2. Academic Programme- MSc Nursing: Advanced Practice Programme
3. Clinical Practice - experience from across an array of Primary care settings including; Urgent Care, GP practice and Out of Hours
4. Competency Framework - Extensive document detailing the competencies essential to advanced practice to be achieved by the trainee ANP over the course of training period (typically 18 months to 2 years).

Results/Key Learning: The programme supports the education, training and development of ANP's to become experienced highly educated clinicians. Following completion of the training programme, ANP's are able to clinically assess and examine patients presenting with heterogeneous conditions and make autonomous decisions regarding their management.

Conclusion: ANP's have become intrinsic to sustaining the capacity and capability of healthcare services within Scotland. The multifaceted training programme set by NHSL ensures ANP's are competent and experienced and thus meet the challenges face by primary care services.

Significance (Impact & Reach): The ANP's ensures patients have access to the right care, at the right time, in the right place and by the right health care professional.



**How the educational landscape for Advanced Clinical Practitioners can benefit from international exchange visits**

Thomas Norman<sup>1</sup>, Rachel May<sup>1</sup>, **Jane Anderson**<sup>1</sup>, **Donna Megeary**<sup>1</sup>, **Laura Washington**<sup>1</sup>, Antony Dhurmea<sup>1</sup>, **Rebecca Britton**<sup>1</sup>, Prof Melanie Rogers<sup>1</sup>

<sup>1</sup>University Of Huddersfield, Huddersfield, United Kingdom

Background: Global exchanges offer trainee Advanced Clinical Practitioners an opportunity to experience education and health care delivery outside their milieu. Six trainee Advanced Clinical Practitioners undertaking an MSc in Advanced Practice (Mental Health) and two educators participated in an international exchange visit to Massachusetts Institute of Health Professionals, Boston, United States of America from the United Kingdom. The visit afforded the opportunity to experience Nurse Practitioner education and clinical practice in a different healthcare system.

Objective: This poster presentation will explain the format of the international exchange visit and include an evaluation of the study.

Approach: Data will be presented on how international exchange visits can benefit trainee Advanced Clinical Practitioners educational experiences. The challenges of setting up international exchanges will also be explored.

Key learning: International exchanges for trainee Advanced Clinical Practitioners are beneficial for both parties. The opportunity to experience education and health care outside of their own culture enables trainees to develop a broader sense of advanced practice internationally.

Conclusion: Trainees described the experience as life changing. It allowed them to reflect on their own practice development and consider different ways of delivering healthcare.

Additionally, some of the innovations seen by Nurse Practitioners in Boston have been suggested to employers in the United Kingdom.

Significance (Impact and Reach): The sharing of knowledge and clinical practice on an international level provides opportunity for further development of Advanced Practice globally.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Advanced Practice Transition in a Global Environment**

**Dr Judith Berg**<sup>1</sup>, Dr Mary Ellen Roberts<sup>2</sup>, Dr Rodney W. Hicks<sup>3</sup>

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Background: The transition of Nurse Practitioners (NPs) into advanced roles within a global landscape is multifaceted and influenced by factors, including differing regulatory frameworks, cultural contexts, and healthcare systems.

Objectives: This presentation delves into the complexities of NP transitions internationally, exploring the challenges, opportunities, and strategies inherent in this evolution.

Approach: This presentation uses an oral format supported by power point slides that are clear, concise, and easy to follow.

Key learnings: Recently, the role of NPs has gained prominence globally, addressing healthcare gaps, especially in underserved areas grappling with physician shortages. However, the transition of NPs from education to practice varies significantly across countries due to divergent scopes of practice, regulatory barriers, and educational requirements. These differences necessitate a nuanced understanding of the global context within which NPs operate.

Globalization has facilitated knowledge exchange and best practices, enabling NPs to adopt evidence-based approaches from various healthcare systems. Yet, navigating the transition into practice in a different cultural and regulatory environment remains a substantial challenge. NPs encounter obstacles related to licensure, certification, and varying scopes of practice, which can impede a smooth transition.

The COVID-19 pandemic highlighted the adaptability and resilience of NPs, prompting rapid modifications in practice settings and necessitating the acquisition of new skills to address emergent healthcare needs. The pandemic accelerated the integration of telehealth and digital health technologies, impacting how NPs deliver care and altering their transition into practice.

Conclusion: Successful NP transitions in a global context require tailored strategies, including advocacy for policy changes to standardize scopes of practice, fostering international collaborations for knowledge exchange, and enhancing cross-cultural competence in NP education.

Significance: This presentation underscores highly significant complexities surrounding NP transitions globally, emphasizing the need for collaborative efforts among policymakers, educational institutions, and healthcare providers to facilitate seamless and effective transitions for NPs worldwide.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

**Motivational Interviewing as a Modality to enhance behavior change in Primary care**

**Dr Carol Berger**<sup>1</sup>, **Dr Lynette Dixon**

<sup>1</sup>Maryville University, St. Louis, United States

Background: Motivational interviewing has been used by therapists extensively for over 35 years. Initially developed for work with patients with alcohol use disorder, much success involving facilitation of behavior change in various applications has been observed. Over the past decade more attention has been given to this technique in the medical field to deliver more successful patient centered care that promotes change behavior in a meaningful way.

Learning objectives:

1. Define what motivational interviewing is, its purpose, and principles and contrast it to the traditional expert model.
2. Identify key components of motivational interviewing.
3. Recognize the stages of change and how motivational interviewing could be applied to facilitate behavior change.

Method or Approach: Lecture/ Discussion

Key Learning: Participants will have a basic understanding of the concepts of motivational interviewing and how to implement this in practice to facilitate change behavior.

Conclusion: Chronic diseases require behavior changes in diet and lifestyle that are often challenging for patients and providers alike. Providers educate on lifestyle modifications and prescribe medications for optimal patient health only to have the patients come back repeatedly with little to no progress. Motivational interviewing is a different approach requiring a shift in mindset and a new skillset. The motivational interviewing approach teaches providers how to lead patients on a path of discovery where they find their own motivation to make the necessary life changes. Studies find that this approach is not only more successful, but it improves patient satisfaction as well as lowers provider burnout scores.

Significance: Once trained in motivational interviewing with implementation advanced practice nurses could have a powerful impact on helping thousands of patients make lasting changes in their lives that would improve their health and make the world a healthier place to live.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **The role of professional regulation on the development of advanced practice nursing (APN) in Europe**

**Caroline Bohlender**<sup>1</sup>

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Background: Across Europe increasing rates of chronic disease, issues around access to timely care and Universal Health Coverage have resulted in a rising interest of APN roles. However the development of ANP roles is variable and their regulation more so, with Heale et al (2015) finding that type of regulation could either be a potential enabler or a significant barrier, despite the International Council of Nurses (ICN) (2013) calling for regulation to be “clear and adequate enough to address full scope of practice...and additional barriers to practice”.

Objectives: Currently an evidence gap exists concerning the role regulatory systems play in supporting or hindering the development of ANP roles. This study seeks to inform that evidence gap.

Methods or Approach: This is a sequential 2 phase mixed methods study. Quantitative phase 1 is a survey of countries covered by the WHO Europe Office (completion date June 2024). This will identify national nursing regulatory organisations and levels of APN practice. In addition, national experts will be asked for their opinions on APN development. Phase 2, directed from survey results, will be 4-6 in-depth case studies of countries with an ANP presence and representing different regulatory system typologies to examine how regulation supports or acts as a barrier to ANP role development.

Results: Survey results analysis is expected to be concluded by June 2024.

Significance: The research has the potential to add to what we know about APN roles in Europe and more specifically to make a significant contribution to knowledge about the contribution of regulatory systems to the development of such roles. As many countries are looking to develop their healthcare workforces and reform their regulatory systems, there is an opportunity to be able to learn from others, thereby, facilitating progression to more efficient healthcare systems.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

**How nurses contribute to the elimination of hepatitis B? A systematic review and meta-analysis**

**Dr Li Caixia**<sup>1</sup>, Mengxing Zhang<sup>2</sup>, Dr Karthikesu Karthijekan<sup>3</sup>, Prof Xia Fu<sup>1</sup>

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Background: With approximately one-third of the global population exhibiting serological evidence of exposure, hepatitis B virus remains a serious public health threat. Elimination of the hepatitis B faces enormous challenges, from prevention to diagnosis, treatment, and long-term monitoring. Nurses are pivotal in optimising the hepatitis B care continuum; however, their contributions have been neglected.

Objective: To identify the role of nurses in the elimination of hepatitis B and to synthesise the effectiveness of interventions with nursing roles in approaching the elimination target.

Design: A systematic review and meta-analysis.

Setting(s): Thirteen databases were searched from their inception to 6 December 2022.

Methods: Interventional studies examining the contribution of nursing roles towards elimination targets were included. Content analysis was used to extract and map the nursing roles based on the Nursing Interventions Classification System. Random-effects meta-analyses were conducted to examine the effectiveness of the nursing roles.

Results: The synthesis from 16 studies identified 13 nursing roles that primarily involved (1) health education and counselling for informed patient decision-making regarding hepatitis B prevention, vaccination, screening, and disease monitoring; (2) case management and health promotion to advocate elimination services at multiple levels and enable equitable access among marginalised communities; and (3) running specialist clinics to lead advanced practices in prescribing and carrying diagnostic tests, formulating evidence-based individualised care plans, and coordinating care throughout the disease process. Interventions with these roles achieved pooled hepatitis B screening and detection rates of 64% and 2%, respectively, increased the odds of hepatitis B virus vaccination by 2.61 times, improved immunity rate, and enhanced patient adherence to antiviral treatment and monitoring of liver comorbidities.

Conclusions: Nurses play multifaceted roles in advocating hepatitis B screening and vaccination, initiating outreach efforts in marginalised communities, and leading advanced practices that effectively contribute to the elimination of hepatitis B.



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Theme: The UK perspective - Multi-professional Advanced Practice

**Dietitian and Therapeutic Radiographer prescribing: A rapid review of the literature**

**Prof Nicola Carey**<sup>1</sup>, Dr Saeideh Babashahi, Dr Karen Stenner

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Background: To support workforce deficits in 2016 independent prescribing (IP) authority was granted to therapeutic radiographers (TR) and supplementary prescribing (SP) to dietitians (D) permitting prescribing from the full range of licensed/unlicensed medicines.

Objectives To undertake a rapid review on the roles that advanced practice dietitians and TRs have in relation to medicines management and evidence of effectiveness.

Methods: Electronic databases were searched January 1968-March 2021, and updated November 2023. No limit was placed on design or quality and articles were accepted from any clinical speciality and healthcare setting. Data on roles, clinical context, and patient outcomes in which medicines management and prescribing were used, along with barriers and facilitators were extracted and analysed descriptively by two reviewers using a bespoke data-extraction template.

Results: 17 articles; 11 related to dietitians and six TRs were included. Evidence evaluating advanced practice roles or prescribing is lacking in both professions. Limited available information indicated that prescribing and order writing are key examples of advance dietetic practice. There is some indication that dietitian involvement in medicines management decisions can potentially save costs. TR literature was descriptive and focussed on understanding core components of advance practice. Medicines management by TRs was portrayed in the context of assessing and managing side-effects of radiotherapy via treatment review clinics.

Conclusion: A lack of clarity and detail regarding the advance practice role in each profession often led to ambiguity. Despite recognition of potential service improvements that advance practice could offer, progress was hampered by a lack of support required to help drive change in practice.

Significance: Prescribing by dietitians and therapeutic radiographers provides organisations with the ability to improve productivity and quality of patient care. There is an urgent need for robust evaluation providing clinical and economic data to understand the impact that prescribing has on healthcare provision.

NPAPN24005(2)

### **Service manager views on the implementation of prescribing by dietitians and therapeutic radiographers**

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Background: Since 2016, therapeutic radiographers and dietitians can train as prescribers. Non-medical prescribing is beneficial to patients and services and is backed by UK strategy to promote innovation and optimise workforce skills. However, barriers hamper uptake. With little research on prescribing by dietitians or therapeutic radiographers, it is important that factors influencing implementation are understood.

Objective: to investigate dietetic and therapeutic radiographer managers' views on uptake and implementation of prescribing.

Methods: Telephone interviews with dietetic (n=30) and therapeutic radiographer (n=29) managers in England were conducted (Oct 2019 to March 2021), with follow-up interviews (n=6 per group) 18-22 months later. Recruitment was via professional bodies and contacts. Thematic analysis identified barriers or facilitators and patterns of adoption. Ethical approval was received from the University of Surrey Ethics Committee.

Results: Uptake of prescribing was higher for therapeutic radiographer (21/29) than for dietetic services (12/30). Key implementation issues for both professions, across time, included: clinical need; competition for funding; organisational support; course preparation; and planning for advanced practice roles. Personal motivation, backed by managerial support were key facilitators for early adoption, whereas demonstrating clinical need facilitated later adoption. Some trusts adopted a 'test the water' approach where others preferred a team approach to enhance capacity. At follow-up, the Covid-19 pandemic had increased recognition of the value of prescribing roles. Limitations of supplementary prescribing hampered uptake and use by dietitians.

Conclusion: Despite benefits to patient care, implementation barriers were similar for both professions and reflect persistent issues across non-medical prescribing professions. New issues related to the expanding number of professions with prescribing responsibilities leading to competition for course funding.

Significance: Greater strategic planning for advanced practice prescribing roles, with accompanying funding and support for development, would help improve role visibility and facilitate service innovation within these profession.

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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **The roles and experiences of Surgical Nurse Practitioners working in hospital settings in England: a phenomenological study**

**Susan Gayle Celera**<sup>1</sup>, Dr Ruth Riley<sup>1</sup>

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Background: Within the surgical department, a plethora of ANP roles exist, such as the ward-based Surgical Nurse Practitioners (SNPs). Compared to ANPs working in other high-income countries, ANPs in the UK cannot fully optimise their role due to regulatory and organisational barriers. Whilst research has been conducted about ANPs in the UK, there is a gap in the literature focused on the SNP role.

Objective: To explore the role and experiences of SNPs working in hospital settings in England.

Methods: Nine SNPs currently employed in hospital settings across England were recruited via social media. Semi-structured interviews were conducted over Microsoft Teams.

Key Learnings: The study findings highlight that SNPs encountered challenges in their role regarding their professional identity, tribalism within the healthcare organisation, issues with accessing educational support and staff retention. SNPs also experienced a displaced sense of identity and imposter syndrome when they transitioned to the SNP role. The SNP role was also described as solitary, ambiguous, and poorly understood, by others.

These challenges and role ambiguity perceived by colleagues undermined their professional identify and negatively impacted on their mental health and self-esteem. Nevertheless, the participants revealed individual efforts to overcome the challenges they faced in their role.

Conclusion: Standardising the SNP role and its educational requirements in England requires further effort so that the expectations of patients, healthcare workers and employing organisations are appropriately managed. By increasing the awareness and acceptance of the role, it will facilitate workplace satisfaction and well-being.

Implications and Future research: Research into the perception and impact of the SNP role would provide in-depth data on the contribution of SNPs in healthcare organisations.

Further research should be made on the differences and similarities between medical ACPs and SNPs to determine how best to support and utilise the ACP workforce within their speciality.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **Nursing experts' view about the current certification system and expected future regulation for CNS**

**Dr Shu-Chuan Chang**<sup>1,2</sup>, Prof Wen-Yu Hu<sup>3,4</sup>, Dr Yao-Mei Chen<sup>5,6</sup>, Dr Jung-Chen Chang<sup>3,4</sup>, Dr Shu-Chen Chang<sup>7</sup>  
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Background and purpose: NP has been government-certified and has regulation in Taiwan. The Taiwan Nurses Association has an APN certification system. However, nurses who graduate with master's degrees and are certified as APNs work in a hospital without status and due salary, which leads to their leaving the healthcare workplace. Developing regulations and certification of CNS is urgent.

Objectives: To explore the consensus of the nursing system about CNS regulations, evaluate the current certification system, and experts' views for future development.

Methods: We conducted an integrated study with three sub-projects. This presentation is one of the three projects about certification and recognition. In searching for consensus in the nursing system, we invited two groups of nursing experts to express their views about the current and expected future certification system, respectively. The participants were nurse experts from different nursing schools and hospitals in Taiwan. They were asked to answer their point of view about the certification and recognition of CNS. The recorded data were analyzed with content analysis.

Results: Results showed nursing experts have a consensus to build national regulations and modify the recognition system for CNS. They suggest incorporating the system into the hospital accreditation provisions to establish the regulations. The education system should modify CNS core competencies to align with the changes in the healthcare system. CNS needs to play the role that demonstrates a contribution to the hospital. Hospital administrator must do their best to put CNSs in appropriate positions.

Conclusion: Through the study, we have a consensus on the CNS regulations expectation, core competencies modification, and rebuilding certification system for future development of CNS role.

Significance: After the study exploration, the TWNA has set up the Taiwan Nursing Certification Center (TNCC) to train the seed to set out tests and will include the new CNS certification system.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **The correlation between Fried's frailty criteria and self-perceived cardiac functional class in adolescents with congenital heart disease**

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**Background:** Frailty is associated with adverse health outcomes and increased mortality in individuals with heart disease. Fried's frailty criteria, encompassing weakness, slowness, body composition, fatigue, and physical activity, have been adapted for adolescents with chronic illnesses. However, little is known about which frailty criteria specifically impact cardiac functions in adolescents with congenital heart disease (CHD).

**Objectives:** To investigate the relationship between Fried's frailty criteria and self-perceived cardiac functional classes in adolescents with CHD.

**Methods:** A cross-sectional study of 302 adolescents aged 12-18 with CHD was conducted. Participants were recruited from pediatric cardiology outpatient departments of two medical centers. Data were collected from grip strengths, the 6-minute walk test, body mass index, triceps skin-fold thickness, the Pediatric Quality of Life Multidimensional Fatigue Scale, and the Physical Activity Questionnaire for Adolescents. The self-perceived cardiac functional class was measured using the New York Heart Association (NYHA) Functional Classification. Data analysis included Spearman's rank correlation coefficients and logistic regression.

**Results:** Shorter 6-minute walk distance ( $p < 0.05$ ), increased fatigue ( $p < 0.001$ ), and lower physical activity ( $p < 0.001$ ) were significantly correlated with worse NYHA classification. Regression analysis, adjusted for age and gender, revealed that increased fatigue ( $p < 0.001$ ) and lower physical activity ( $p < 0.05$ ) were significantly more negatively predictive of NYHA classification. However, weakness, slowness, and body composition, including body mass index and triceps skin-fold thickness, did not significantly influence NYHA classification in adolescents with CHD.

**Conclusion:** The study findings underscore the significant contribution of fatigue and diminished physical activity, as outlined by Fried's frailty criteria, to the emergence of self-perceived cardiac functional symptoms in adolescents with CHD.

**Significance:** A nurse-led intervention becomes imperative to formulate strategies to mitigate frailty risks and foster healthy behaviors within this population.





**Construction of Core Indicator System for Advanced Practice Nurses in Urology: a Delphi study****Yu Chen**<sup>1</sup>, Caiping Song<sup>1</sup>, Chen Luo<sup>1</sup><sup>1</sup>Xinqiao Hospital, the Second Affiliated Hospital of Army Medical University, Chongqing, China

**Objective:** Constructing a core indicator evaluation system for Advanced Practice Nurses in urology to guide the construction of personalized training programs for Advanced Practice Nurses in urology.

**Design and methods:** The research will be conducted from June to December 2023. Firstly, a research group will be established to preliminarily construct an indicator system through literature review and semi-structured interviews. Then, the indicators will be revised through three rounds of Delphi expert consultation, and finally, a core indicator evaluation system for Advanced Practice Nurses in urology was constructed.

**Results:** The constructed core competency evaluation system for Advanced Practice Nurses in urology includes 5 primary indicators, 12 secondary indicators, and 46 tertiary indicators. The positive coefficients of the three rounds of expert consultation are all 100%, and the authoritative coefficients of the three rounds of expert consultation are 0.889, 0.901, and 0.911, respectively. The Kendall harmony coefficients of three rounds of inquiry were 0.302, 0.337, and 0.345, respectively, and the differences were statistically significant ( $P < 0.001$ ).

**Conclusion:** The core competency evaluation system for Advanced Practice Nurses in urology constructed through research is reliable and scientific, and can be used as a tool to evaluate the core competency of Advanced Practice Nurses in urology.

**Effectiveness of the 'Healthcare CEO' App for Type 1 Diabetes Patients Transitioning From Adolescence to Early Adulthood: A Pilot Study with Mixed Methods****Prof Yueh-Tao Chiang**<sup>1,2</sup>, Dr Fu Sung Lo<sup>2</sup>, Prof Hsing Yi Yu<sup>1,2</sup>, Prof Chi Wen Chen<sup>3</sup><sup>1</sup>Chang Gung University, Taiwan, <sup>2</sup>Chang Gung Memorial Hospital, Taiwan, <sup>3</sup>National Yang Ming Chiao Tung University, Taipei, Taiwan

**Background:** Patients with type 1 diabetes (T1D) aged 16-25 face challenges in disease control and exacerbation. Mobile applications (apps) appear to aid self-care in diabetic youth, yet inconsistent results call for more evidence on the efficacy of app-based interventions.

**Methods:** An explanatory mixed methods approach was employed, starting with a 9-month, single-blind, two-arm parallel-group randomized controlled trial at a pediatric metabolism department in Northern Taiwan. Forty T1D patients were randomized into experimental (N=20) and comparison (N=20) groups. The experimental group used the multifunctional Healthcare CEO App, while the comparison group accessed only its recording interface as a sham treatment. Outcomes included HbA1C, glucose episodes, and quality of life, evaluated at baseline, 3, 6, and 9 months. Follow-up qualitative research involved interviews with experimental participants, with content analysis.

**Results:** The pilot study noted a 5% attrition rate, with no significant differences between groups across all measured outcomes. Notably, the within-group analysis demonstrated a significant time effect in the experimental group for the frequency of hyperglycemic episodes (Wald  $\chi^2 = 10.08$ ,  $p = .018$ ), with post-intervention data showing a significant reduction at 3, 6, and 9 months compared to baseline, indicating a sustained improvement. The qualitative analysis yielded three key themes: 1. Comprehensive Functionality, highlighting the app's all-in-one feature set; 2. Meeting Expectations, reflecting the app's alignment with individualized user needs; and 3. Areas for Improvement, identifying potential enhancements for the app.

**Conclusion:** The Healthcare CEO App, tailored for T1D transitional care, effectively reduced hyperglycemic episodes in the experimental group. However, no broader between-group benefits were noted. Participant feedback suggests the potential for further app development.

**Significance:** The study indicates the Healthcare CEO App's potential to improve disease management for transitioning T1D patients. Future enhancements could include multimedia and AI features, based on user feedback.

**Trial Registration:** ClinicalTrials.gov ID NCT05022875.



## Outcomes and Impact as Perceived by DNP-prepared Nurses

**Dr Dianne Conrad**<sup>1</sup>, Dr Karen Kesten<sup>2</sup>, Dr Amy Manderscheid<sup>1</sup>, Dr Katherine Moran<sup>1</sup>, Dr Catherine Corrigan<sup>3</sup>, Dr Sarah Beebe<sup>2</sup>, Dr Rosanne Burson<sup>4</sup>, Dr Liz Pohl<sup>1</sup>

<sup>1</sup>Grand Valley State University, USA, <sup>2</sup>The George Washington University, USA, <sup>3</sup>Dublin City University, <sup>4</sup>University of Detroit Mercy, USA

**Background:** Healthcare organizations strive to enhance health outcomes while reducing costs. Advanced Practice Nurses (APNs) in the U.S. are pursuing the Doctor of Nursing Practice (DNP) degree to acquire essential competencies to lead healthcare reform initiatives through their practice scholarship contributions.

**Objective:** The study aims included investigating the perceived impact of practice scholarship among DNP-prepared nurses and the relationship between impact, primary work role, and years since graduation. In the survey, impact was defined as a powerful effect that something, especially something new, has on a situation or person, for example, change in practice and/or sustained change in practice.

**Methods:** A cross-sectional study design was used to administer a self-report online survey to a convenience sample of 306 practicing DNP graduates, resulting in 269 completed surveys.

**Results:** Respondents reported the highest self-perceived impact of practice scholarship on patients, populations, care quality, and the nursing profession. However, the impacts on policy, cost, and cost savings were significantly lower. No significant differences in practice scholarship impact were found based on role or years of experience since graduation. At the system level, 65.5% perceived the impact as very/profoundly impactful, while policy/legislation impact and international impact were reported as very/profoundly impactful by 24.3% and 17.1% respectively.

**Conclusion:** DNP preparation supports optimal practice scholarship outcomes. The absence of objective data measurement for practice scholarship limits the ability of APNs to fully leverage their education and scope of practice. Organizational resources are needed to support the impact of APN scholarship.

**Significance:** A collaborative effort among academia, practice, and APN graduates is imperative to advance the impact of APN practice and achieve the necessary outcomes at the patient, population, system, policy, and global levels. APNs can pursue new opportunities to distinguish themselves, disseminate their work, and showcase how their practice scholarship competencies contribute to organizational strategic plans.



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Theme: Investing in the APN Health Workforce

## Evidencing Work Based Learning

**Dr Mark Cooper**<sup>1,2</sup>, Victoria Campbell<sup>1,2</sup>, Ed Pool<sup>1,2</sup>, Susan Hunt<sup>1</sup>, Kirsteen Lang<sup>2</sup>, Dr Evelyn McElhinney<sup>2</sup>, Maria Renwick<sup>2</sup>

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**Background:** A census of all the Clinical Nurse Specialists (CNSs) in Scotland has identified 2,899 CNSs in more than 50 specialities. Scottish Government guidance recommends a minimum of a one year training at honours degree level for a CNS working at level 6 on the NHS Career Framework (Senior Practitioner or Enhanced Practitioner level) and a two year training at a minimum of Postgraduate Diploma for a CNS working at Advanced Practice level (Advanced CNS). Specialist programmes do not exist for all of these roles, nor are likely to as there would be insufficient numbers of students to sustain the range required. Yet, expertise exists within the workplace to train and develop CNSs and was previously used in a more informal way.

**Purpose:** To capture specialist learning within the workplace and combine with generic modules from an advanced practice programme to provide a range of pathways for CNSs and Advanced CNSs.

**Approach:** Three work based learning modules were developed by a Health Board in partnership with a local University. The modules, are delivered by a Health Board team close to the clinical areas and, form part of the pathway. Completing the pathway leads to named CNS or Advanced CNS exit award.

**Findings:**

- Academically robust work based learning modules can be developed to capture learning within the workplace
- There are challenges around agreeing what learning is required for each speciality
- Formally capturing work based learning provides recognition of the teaching and learning that goes on within the workplace
- Formal assessment is introduced

- There is greater consistency between different specialist areas

Conclusion: Capturing the learning within the workplace within academically accredited work based learning modules provides formal recognition of that learning, introduces a more robust assessment of that learning and helps ensure greater consistency.



1536

Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **How do uniforms affect the way Advanced Practice Nurses are perceived? A scoping review and national survey.**

**Dr Mark Cooper**<sup>2,1</sup>, Karen Kindness<sup>3</sup>, Margot McCulloch<sup>4</sup>, Dr Chris McParland<sup>1</sup>

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Background: The four nations of the United Kingdom (UK) have adopted different approaches to uniform policy for advanced practice nurses (APNs). NHS Scotland national uniform policy does not differentiate APNs from other nursing staff. Clarity is needed, particularly in the case of APN roles which are significantly different to other nursing roles.

Objectives: To explore people's perceptions of healthcare uniforms in western nations, and to understand what different uniforms communicate to patients, hospital visitors and other healthcare staff in Scotland.

Methods: A mixed-methods scoping review following the Joanna Briggs Institute (JBI) methodology, and a cross-sectional survey of approximately 1000 people in Scotland. CINAHL, ASSIA, PsycINFO, Medline and EMBASE were searched for the scoping review. Peer-reviewed English-language studies using any methodology to explore people's perceptions of healthcare uniforms were included. The survey (ongoing) will be deployed across a range of settings in Scotland, and uses standardised photographs of uniforms to elicit responses to questions.

Results: Forty-six studies (mainly from North America) were included in the scoping review, and these included doctors, nurses, dentists, allied health professionals and midwives. Only one study involved advanced practice nurses (clinical nurse specialists). Several perspectives on healthcare uniforms were presented, although white uniforms were frequently preferred. Patients want uniforms that allow easy identification, and both patients and nurses want to be able to identify seniority amongst nurses. The surveys are ongoing but preliminary findings will be presented at the conference.

Conclusion: Perceptions of uniforms are culturally and contextually situated. It is important to consider how uniforms can affect communication both positively and negatively. Decisions about what healthcare professionals wear should be based on what the uniform communicates to other people.

Significance: We hope these findings will help inform decisions on APN uniform policy in Scotland, and we believe that the scoping review also has international significance.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **A review of the referral process to ensure appropriate care for service users**

**Laura Copeland**<sup>1</sup>, Michelle McGuinness, Lizanne Hamilton-Smith, Michael Abban, Kirsten McKeown

<sup>1</sup>NHS 24, Aberdeen, United Kingdom

Introduction: Members of the Advanced Practice team are working on a project to review the appropriateness of referrals to the Minor Injuries Units (MIU) or Accident and Emergency (A&E) departments where the Flow Navigation Centre (FNC) is involved in deciding the location of care. The idea is driven by the redesign of unscheduled care agenda whilst addressing the health needs of modern society. The team are critically reviewing the care provided by the organisation in an evolving health care setting, ensuring the most appropriate journey for the service users.

Aims/objectives: Following the success of the educational test of change in 2023, whereupon 78% of clinical supervisors wish further regular CPD sessions, there was an appetite to identify further potential educational themes.

The aim is to review the referral process to MIU/A&E to enhance patient journeys, addressing issues such as long distance or unnecessary travel for some patients. Success will be measured qualitatively and quantitatively- numbers of patients who are given peer reviewed appropriate outcomes verses inappropriate, and feedback from service users, clinicians and external stakeholders.

Details of project: The team required exposure to MIU/A&E and the FNCs to understand their clinical decision-making and outcomes. The team linked up with local A&E clinicians for rotational placements, shadowing, and learning. This

required service level agreements and short-term contracts to minimise clinical and information governance risks. There was a need to ensure the clinicians were competent and confident at making appropriate clinical decisions. Other considerations include ensuring clinical risk mitigation, patient satisfaction, meeting needs of patients and clinicians, and robust contingency planning.

Results/outcomes: The project is still in the planning stage.

Conclusions/impact: Although the project has not yet been fully implemented, the planning and undertaking to this point, has given the team significant learning for this project and other future projects.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **Re-introducing remote prescribing**

**Laura Copeland**<sup>1</sup>, Michelle McGuinness, Kirsten McKeown, Marie Wood, Gavin Callander, Michael Abban, Lizanne Hamilton-Smith  
<sup>1</sup>NHS 24, United Kingdom

Background: Historically the organisation provided remote prescribing, however following Covid 19 prescribing practice has ceased, and the prescribing processes have been archived.

Objectives: Through collaborative working with pharmacy colleagues the desire is to enable prescribing to recommence within a safe and holistic manner. The overarching diver is to enhance and improve the patients journey through the health board.

Methods or Approach: The methodology for data collection involved the retrieval of 'medication' related recorded calls. From the randomly selected calls it was to be determined by Advanced Practitioners, based on the content of the call, if they agreed with the outcome or if they would modify it. If they would change it, it was noted why and what the alternative outcome would be. The qualitative data relating to reasons for changes were then analysed and themed.

Key learnings or results: The results evidenced that there would be an improvement in the patient journey if the calls had been undertaken by a prescriber. From the analysis, 59% of calls would have had a different outcome, with 29 % of these calls a remote prescription for medication would have been provided, the other 30% of calls would have resulted in an alternative endpoint due the level of advanced clinical knowledge and assessment. With this potential change in practice, it could ease the pressures on partner services by reducing the caseload being referred onwards, it is thought this could lead to more patient satisfaction and an improved reputation for the organisation.

Conclusion & Significance: The implementation of prescribing within the organisation would reduce the duration of the patients' journey, with the care being delivered closer to home for patients. It would also aid advanced practice staff to work across all four pillars of practice and supports in advancing practice across the organisation.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Critical Consciousness for Advance Practice Nurses leaders: Reimagining an equitable health care system**

**Melissa Crump**<sup>1</sup>  
<sup>1</sup>University of Victoria, Victoria, Canada

The tragic events of the 2020 murder of George Floyd and the COVID-19 pandemic have generated heightened awareness in Canada and beyond concerning the profound influence of racism on the health outcomes of historically, systemically and persistently marginalized people, such as Black, Indigenous and people of colour. Health disparities continue to impact vulnerable populations, and there is an urgent need to create interventions that promote health equity.

Advanced Practice Nurse (APN) leaders are pivotal in addressing these disparities through their unique blend of clinical expertise, leadership skills, and a holistic understanding of the health care system. As the health care system continues to evolve, the role of APN leaders becomes increasingly critical in driving change. Therefore, critical reflection and transformation are paramount for APNs' ability to unpack inequities.

In this presentation, I will discuss the significance of critical consciousness (Freire, 1973) for Advanced Practice Nurse leaders and the importance of engaging with positionality, narratives, power and privilege to examine systems of oppression and how they operate in the health care system.

The presentation reports on the preliminary findings of my qualitative grounded theory Ph.D. research with APNs in Canada. From the data collected using semi-structured interviews and focus groups, I will unpack APNs' perceptions of critical consciousness and how it informs their equity-centred actions and strategies. Participants will be able to identify key strategies and discuss the role of agency to create a more equitable health care system that defies color blindness and how to use it to engage in system change.



801

Theme: Investing in the APN Health Workforce

### **Impact of Organizational Factors on Job Satisfaction of Hospital-Based Nurse Practitioners**

**Rini Dass**<sup>1</sup>

<sup>1</sup>McMaster School of Nursing, Hamilton, Canada

Background: Hospitals are complex organizations with various factors that can create barriers to NP roles and affect the job satisfaction of NPs. It is essential to identify these factors in order to address them.

Objectives: The objective of the literature review was to identify factors related to job satisfaction for hospital-based NPs.

Methods or Approach: A literature review was conducted using CINAHL, Medline, EMCARE, and EMBASE databases. To ensure that the most recent and pertinent literature was considered, articles published from 2013 onwards were included.

Key learnings/Results: A statistically significant positive correlation was found between organizational support and professional satisfaction/job satisfaction for NPs. Intrinsic factors (such as autonomy) and extrinsic factors (such as salary, monetary bonuses, reward distribution, and compensation for activities) affect job satisfaction. Formal power, work-related burn-out, availability of resources, and information sharing impact NPs' job satisfaction. The role of administrators and leaders in hospitals was identified as vital in creating a supportive and empowering environment for NPs, which in turn leads to job satisfaction.

Conclusion: Growing numbers of nurse practitioners internationally call for a strategic approach to enhance their job satisfaction. Factors identified in this literature review can guide hospital leaders and administrators in developing strategies to increase job satisfaction for hospital-based NPs and increase retention.

Significance: The results of the literature review provide insight into what impacts the job satisfaction of hospital-based NPs. To strengthen the NP workforce, it is essential to implement factors that increase job satisfaction and address factors that decrease it. These results can be utilized by NPs, hospital leaders, administrators, and policymakers to enhance NPs' job satisfaction, increase job retention, and increase access to care provided by NPs.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **Liberian Nurse Anesthetists identify a critical gap in capnograph monitor access: Data offers a realistic guide to closing it.**

Prof Aaron Sonah<sup>1,2</sup>, Lorba Tulay<sup>2,6</sup>, Ama Taplah<sup>2,5</sup>, Patricia O'Connor<sup>2,4</sup>, Prof Eileen Stuart-Shor<sup>2,4</sup>, **Prof Janet Dewan**<sup>2,3</sup>

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Anesthetists worldwide consider capnography a life-saving patient monitor that detects CO<sub>2</sub> in expired breaths. It's the "gold-standard" for assessing respiration and resuscitation, alerting clinicians to airway and circulation problems when still retrievable. Professional guidelines require it during anesthesia and sedation. Despite being routinely available for over thirty years, nurse anesthetists (NAs) in developing countries often do not have access to this evidence-based patient safety device.

With the objective of improving capnography access in Liberia, NAs collected data to describe the gap in anesthetizing locations. Data will guide fundraising and device distribution.

Public hospitals in Liberia were surveyed to assess the number of NAs, anesthetizing locations, and the availability of capnography. Interviews verified recorded data.

Survey results identified a substantial gap in capnography coverage in Liberia's operating theatres. Thirty-six surveyed facilities listed 112 NAs, 78 operating theatres and 13 capnographs. No facility reported capnography capability in every operating location. Twenty-four facilities (2/3) counted zero capnographs.

Capnography assessment is an important anesthesia standard that remains unmet in many lower-resource areas, despite being acknowledged as a life-saving monitor of respiration and resuscitation. Although required in wealthy systems and recognized as a global practice standard, cost and product design impede equipping lower-income sites. NA/APN education includes training in the use of capnography, but many NAs don't have the monitors to safeguard their patients.

Data collected by Liberian NAs verifies the significant gap in capnography coverage that education and additional monitors can reduce. Donor contributions can supply affordable, tested capnographs with long-life battery and sturdy construction. Faculty instructors will upgrade NAs knowledge of the use of capnography and its importance. With plans underway for distribution of monitors, data collected by the Liberian NAs allows measurement of progress toward closing the capnography gap and serves as a baseline for evaluating donation and clinical outcomes.



1150

Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Expert Assessment of an Advocacy Toolkit for Comprehensive Sex Education in Nepal**

Sima Sharma Tiwari<sup>1</sup>, Tumla Shrestha<sup>2</sup>, Lynn Reede<sup>1</sup>, Jordon Bosse<sup>1</sup>, **Janet Dewan**<sup>1</sup>

<sup>1</sup>Northeastern University, Boston, United States, <sup>2</sup>Maharajgunj Nursing Campus, Kathmandu, Nepal

Adolescents are particularly vulnerable to several serious health problems, including unwanted pregnancies, unsafe abortions, sexually transmitted infections (STIs), human immunodeficiency virus (HIV), and acquired immunodeficiency syndrome (AIDS), intimate partner violence (IPV), physical abuse, accidents, and mental health disorders. Numerous studies have shown that one of the main causes of these serious health problems in adolescents is a lack of comprehensive sex education.

This project developed an advocacy toolkit to be utilized as a comprehensive strategy for the implementation of inclusive, transformative, incremental, culturally relevant, and scientifically supported Comprehensive Sex Education (CSE) targeting the adolescents of Nepal.

This evidence-synthesizing project used modified Delphi method to develop an advocacy strategy. After review of evidence, an online survey tool was developed and then assessed by a Subject Matter Expert (SME) panel that included diverse stakeholders (health care professionals, parents, adolescents, policymakers, and teachers) impacted by CSE in Nepal. Descriptive statistics analyzed quantitative Qualtrics survey data and calculated 80% or greater agreement. Coding of qualitative data was used to optimize the advocacy toolkit between rounds to achieve agreement.

The majority of the SMEs affirmed the CSE advocacy strategies proposed in the Delphi survey, emphasizing that local resources be utilized to advocate for CSE. They agreed training and skills are required to advocate effectively while advocacy also needs resources, relevant and specific objectives, communication tools, timely revision, and evaluation of effectiveness.

Although designed for the Nepal context, disseminating this toolkit can help those in diverse settings actualize sex education advocacy that implements strategies, and institutes and safeguards effective CSE initiatives promoting and acknowledging adolescent rights to accurate information. The toolkit can guide advocacy at the local, national, regional, and global levels, and also inform collective action to critique policies, alter narratives, and increase demand for high-quality Sexual Reproductive Health Services for adolescents.



1595

Theme: The UK perspective - Multi-professional Advanced Practice

### **Mental Health Advanced Clinical Practitioners providing structured therapeutic support for mental health patients presenting in primary care in the United Kingdom**

**Antony Dhurmea**<sup>1</sup>, **Jane Anderson**<sup>1</sup>, Prof Melanie Rogers<sup>1</sup>

<sup>1</sup>University Of Huddersfield, Huddersfield, United Kingdom

Background: Mental health Advance Clinical Practitioners are a recent addition to the primary care workforce. With the current increased demand on services in primary care, Mental Health Advanced Clinical Practitioners can expedite patient access to treatment and improve the patient experience by offering a holistic, individualised, and structured approach to care.

Objectives: This poster presentation will describe a structured approach that Mental Health Advanced Clinical Practitioners could offer patients in primary care.

Methods or Approach

The poster will explain the role of a Mental Health Advanced Clinical Practitioner in primary care and set out a structured approach to the care of patients with mental health presentations.

Key learnings or results: Psychiatric Nurse Practitioners in Boston offer, a structured approach to some primary care patients in a defined number of sessions covering therapeutic strategies patients could use to manage their mental health symptoms. Primary care patients had rapid access to this support.

Conclusion:

There appears to be great merit in offering a similar structured programme in the UK to that offered in the USA by Psychiatric Nurse Practitioners, for mental health presentations in primary care.

Significance (Impact and Reach): Patients with a mental health presentation may benefit from a structured therapeutic programme delivered by Mental Health Advanced Clinical Practitioners. Such a programme would provide individualised, holistic care to patients, ameliorate dependence on pharmacology and reduce longitudinal reattendance in primary care.



784

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **Development of core entrustable professional activities for advanced practice nurses in China**

**Wenjing Dong**<sup>1</sup> **Qian Zhang**<sup>2</sup>, Ruifang Zhu<sup>3</sup>, Shifan Han<sup>3</sup>

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Background: Entrustable professional activities (EPAs) has gained popularity within competency-based healthcare education programmes across disciplines, professions, and countries. As opposed to traditional timebased approach, EPAs bridge the gaps between competency framework and clinical practice. Many scholars have found that EPAs can serving as a crucial competency assessment tool in the training process of advanced practice nurses(APN).Due to APN role has not been introduced in mainland China, the role is not determined, education should be guided.

Objectives: The purpose of this study is to comprehensive demonstrate a set of core EPAs framework for APN education in China.

Methods: Based on an extensive literature research and semi-structured interviews, a two-round Delphi-study used to form the final framework content.

Results: The framework comprises four components: EPAs, core competencies, entrustment levels, and milestones. We have identified five primary indicators and twenty secondary indicators for EPAs, with detailed description. Consensus was achieved on the importance and relevance of EPAs. Furthermore, we have established a two-dimensional matrix aligning EPAs with the ten core competencies of Nurse Practitioners (NPs) as modified by the National Organization of Nurse Practitioner Faculties (NONPF). This matrix clarifies the specific competencies required to accomplish each task. Additionally, the entrustment level is defined using a five decreasing levels of supervision, including teacher supervision level, learner performance, and competency grading from novice to expert. Lastly, we have developed another two-dimensional matrix linking EPAs with their corresponding entrustment levels. This matrix serves to determine expected ability levels at different stages of training while also clearly defining milestone achievements.

Conclusion: More research is needed to examine the psychometric properties of the EPA assessment tools and evaluate the effectiveness of EPAs in graduate nursing education.

Significance: EPAs can be incorporated into APN education stages and utilized for summative training objectives. Moreover, it facilitates the concretization of training programs through curriculum system, clinical practice, teaching design, and evaluation processes.





**Exploring the implementation of paramedic independent prescribing in general practice in England: a mixed methods multiple case-study**

**Judith Edwards**<sup>1</sup>, Andy Collen<sup>2</sup>, Melaine Coward<sup>1</sup>, Nicola Carey<sup>3</sup>

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**Background:** To optimise workforce skills and promote service delivery innovation, independent prescribing rights were extended to UK advanced practice paramedics in 2018. UK non-medical independent prescribing is well established, however implementation can be complex with organisational and practitioner level barriers limiting enactment and sustainability of prescribing roles. Despite adoption rising rapidly in UK primary care, data on paramedic independent prescribing implementation is limited.

**Objectives:** To explore the use, acceptance, and implementation of primary care paramedic independent prescribing in England.

**Methods:** A 2021 mixed-methods multiple case-study of 3 general practices and 1 community care provider with paramedic independent prescribing services, collecting data from paramedic consultations (n=246), patient satisfaction questionnaires (n=61) and paramedic/team member telephone interviews (n=16). Quantitative and qualitative datasets were analysed individually, and within/cross case findings triangulated to enable holistic understanding of implementation.

**Results:** Paramedics were highly engaged in prescribing decision-making, undertaking medicines management activities in 154 (63%) consultations, prescribing in 99 (46%) and providing medicines information/advice in 138 (56%). Patients expressed satisfaction with paramedic care (Consultation Satisfaction Questionnaire mean= 75.4, SD=14.3), with 94% (n=57) agreeing that paramedics should have prescribing capability. Barriers were limited managerial knowledge of paramedic independent prescribing training support requirements and lack of formal systems for developing competence/confidence in transition. While pro-independent prescribing visionary leadership and funding were facilitators in community care, general practice adoption was practitioner led and lacked strategic planning for leading or enhancing existing services.

**Conclusion:** Paramedic independent prescribing was acceptable to stakeholders across all participant sites with few barriers impeding early implementation. To maximise and ensure long-term sustainability in primary care, greater focus on strategic planning is required.

**Significance:** With population health demand rising globally, the UK paramedic independent prescribing model of care has important implications internationally for maximising workforce resources and providing more flexible models of service delivery.



1005

Theme: The UK perspective - Multi-professional Advanced Practice

**Exploring medicines management in advanced paramedic practice: results of a national cross-sectional survey in England**

**Dr Judith Edwards**<sup>1</sup>, Andy Collen<sup>2</sup>, Prof Melaine Coward<sup>1</sup>, Prof Nicola Carey<sup>3</sup>

<sup>1</sup>University of Surrey, Guildford, England, <sup>2</sup>South East Coast Ambulance Service, Crawley, England, <sup>3</sup>University of the Highlands and Islands, Inverness, Scotland

Background: NHS policy has committed to increasing non-medical advanced practice (AP) roles for improved care quality and productivity, with paramedics identified to have significant skill transferability across a range of urgent and emergency care pathways. However, there is limited national level data on AP paramedics or their involvement in medicines management.

Objectives: To explore the medicines management practices of AP paramedics across England.

Methods: A pre-piloted (n=10) online cross-sectional survey using non-probability sampling recruited AP paramedics between February-August 2019. Dissemination was via social media and College of Paramedics newsletters. Data about job roles, service provision and medicines management was collected.

Results: A total of 234 respondents from 7 NHS regions based in ambulance (47%,n=109), primary/community (29%,n=68), secondary (18%,n=41) and miscellaneous (6%,n=15) settings. Higher Agenda for Change pay bands ( $\geq$  band 7, 94%, n=116,  $p<0.001$ ) were reported in non-ambulance based services, with more consultant/advanced or specialist job roles (93%,n=110,  $p<0.001$ ) and higher levels of educational attainment (66.7%,n=82, $p<0.001$ ). One hundred and sixty (68%) respondents were engaged in medicines management, with those in primary/community care administering the greatest number of medicinal items weekly (median 30.0,  $p<0.001$ ) from a wider range of therapy areas (median 12.0, $p<0.001$ ). However, GP recommendations/requests were required for 73% (n=1667) of all items suggesting high need for prescribing capability.

Conclusion: Data provides the first survey evidence for AP role proliferation across wider health services suggesting paramedics are mobilising to meet demand-supply gaps in line with workforce transformation agenda. High engagement in medicines administration in primary care coupled with high reliance on doctors for prescribed medicines suggest recently legislated independent prescribing rights will become increasingly important.

Significance: With a shortage of doctors to prescribe medicines, continued upskilling of the non-medical advance practice workforce is essential both in the UK and internationally to support advance clinical practitioners to deliver patient medications.



903

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**Creating an exemplary student experience in a distance nurse practitioner education program.**

Prof Debbie Fraser<sup>1</sup>, **Dr Jennifer-Lynn Fournier**<sup>1</sup>

<sup>1</sup>Athabasca University, Athabasca, Canada

Since the pandemic, many nursing education programs have transitioned either to a fully online or to a hybrid delivery model. The move to distance education provides opportunities not previously available for distributed students. However, online course delivery presents challenges with respect to engaging students and creating an optimal learning environment. A large Canadian University has offered a fully online NP education program for over thirty years and currently has over 600 students enrolled in the family-all-ages program. Creating an exemplary experience for this large student body requires careful attention to distance pedagogy.

The purpose of this presentation is to describe the key components of a distance education program that promotes student engagement and satisfaction. The results of a scoping review addressing student satisfaction in distance education will be presented and the integration of key engagement strategies in the context of this large education program will be discussed. Examples of engagement strategies will be discussed along with student evaluation data from our program.

Key components of engagement in distance education include the need for students to have a clear roadmap outlining expectations and criteria for success. Additionally, students want timely relevant content delivered by engaged faculty with relevant expertise.

Implementing a successful distance education program involves more than mounting course content on an online platform. Findings from this presentation can be applied to programs both large and small and will help program faculty to better engage their on-line learners.



179

Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Advanced Practice Nursing in Predicting Thrombosis Risk in Elderly Patients with Femoral Neck Fractures: A Machine Learning-Driven Model**

**Mengxue Fu**<sup>1</sup>

<sup>1</sup>Jiayang People's Hospital, Chengdu, China

Background: Elderly patients with femoral neck fractures face increased thrombosis risks, impacting recovery and quality of life. Advanced Practice Nurses (APNs) are crucial in risk management, offering essential skills for early intervention.

Objective: This study aimed to develop a machine learning-based predictive model used by Advanced Practice Nurses to accurately assess the risk of thrombosis in elderly patients with femoral neck fractures, thereby guiding more effective prevention and management strategies.

Method: A retrospective study design was employed, utilizing data from a hospital patient database in China. Clinical data from 659 elderly patients with femoral neck fractures were collected, including detailed health information, laboratory results, and personal health histories recorded by APNs. Subsequently, machine learning algorithms like Random Forest and Support Vector Machines were used to build the predictive model.

Results: The model achieved an accuracy of 80.81% on the test set. For patients without thrombosis, the model showed a precision of 78% and a recall rate of 99%. In contrast, the precision was as high as 97% for patients with thrombosis, but the recall rate was lower at 46%. Key features identified included basic patient information (such as age, number of hospitalizations, time to hospitalization, BMI) and blood indicators (like red blood cell count, and hemoglobin).

Discussion: This study demonstrates the significant role of Advanced Practice Nursing in using machine learning technology to predict thrombosis risk. APNs can utilize this model as a clinical assessment tool, enhancing the accuracy of thrombosis risk prediction through comprehensive analysis of patient's health information and laboratory results. Moreover, the model can identify critical clinical parameters, enabling APNs to recognize high-risk patients earlier and intervene timely.



**Promotion of Advanced Nursing Practice in Hemodialysis in China: A 15-Year Journey from Rookie to Expert**

**Prof Xia Fu**<sup>1</sup>, Dr Caixia Li<sup>1</sup>, Ting Liu<sup>1</sup>, Mi Zhong<sup>1</sup>, Shengzi Liu<sup>1</sup>

<sup>1</sup>The Eighth Affiliated Hospital, Sun Yat-sen University, Shenzhen, China

Background: Hemodialysis is a renal replacement therapy for patients with end-stage renal disease. Promoting advanced nursing practice is crucial for delivering high-quality hemodialysis care. Over a 15-year period, we have advanced nursing practice in hemodialysis through research and evidence-based practice, establishing hemodialysis standards, developing hemodialysis nursing clinics, and providing education and training for clinical specialist hemodialysis nurses.

Methods and Results: Initially, we conducted over 60 studies, including multicenter observational studies and randomized controlled trials, to promote evidence-based hemodialysis nursing practice. For example, we advocated for dumbbell exercises to improve blood flow in the draining vein (mean difference, 359.50 [111.90-829.05] mL/min; P = 0.001), enhanced arteriovenous fistula function by managing blood pressure variability, and implemented the Dingding App, which significantly improved hemoglobin levels during hemodialysis (109.6±0.8 vs. 97.2±1.2, t=66.279, P<0.001).

These evidence-based practices enabled us to establish high-quality hemodialysis standards, including nursing procedures for drug thrombolysis in arteriovenous fistula thrombosis and internal fistula puncture guided by B-ultrasound, to advance hemodialysis nursing practices.

Furthermore, we established nurse-led hemodialysis clinics to offer patient-centered care, including education; nutrition, exercise, and psychological counseling; and management of vascular access, fluids, and symptoms. We also connected with resources, such as support from non-governmental organizations, to help patients overcome barriers, including financial constraints, to access high-quality hemodialysis care.

Most importantly, we have launched 10 certified training programs that have trained over 2,000 specialist hemodialysis nurses, enhancing their knowledge and skills in practice, research, and management, essential for caring for hemodialysis patients.

Conclusion and significance: Through 15 years of dedicated efforts in research, evidence-based practice, standard development, and specialized training for hemodialysis nurses, we have carved a unique trajectory for the development of advanced practice nurses in the field of hemodialysis in China. This has contributed substantially to improving the quality of life for patients undergoing hemodialysis.



812

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### Historical Origins and Evolution of Advanced Practice Nursing as a Concept in the United States

**Dr Roberto Galao Malo<sup>1</sup>**, Dr Rita D'Aoust<sup>2</sup>, Dr Alison Davidson<sup>1</sup>

<sup>1</sup>Mount Sinai Hospital, New York, United States, <sup>2</sup>Johns Hopkins University School of Nursing

**Background:** The origins of Advanced Practice Nursing (APN) are contentious. In the U.S., its emergence is often dated to the early 1980s, but international perspectives credit Loretta Ford or the 1960s for its creation, overlooking earlier-established roles like Clinical Nurse Specialists and Nurse Midwives. The APN “consensus model” only emerged in the 1980s, with reasons for this delay unclear, possibly due to historical oversight or conceptual differences. Despite the International Council of Nurses' 2020 guidelines, confusion about APN persists.

**Objectives:** This work aims to examine the historical roots of APN in the U.S. and explore its impact on education and policy.

**Methods:** A historical analysis was conducted, focusing on The American Journal of Nursing publications and literature reviews supplemented by already available interviews.

**Results:** The origins of Advanced Practice Nursing as a concept can be traced to the 1930s. The first term used was “Advanced Course of Clinical Subjects.” It was created to differentiate university-based clinical specialization from “postgraduate” courses developed by hospitals, which were associated with poor education standards and nurses' exploitation. In the 1940s and early 1950s, the concept evolved to incorporate clinical or functional specialization. In this period, the term APN appears for the first time. However, the use started to decline due to the normalization of nursing education at the university and the multiplication of Master's in Nursing programs. In the 1970s and 1980s, APN began to be used as a clinical role to describe Clinical Nurse Specialists and Nurse Practitioners. Eventually, in the 1980s and 1990s, APN evolved into a regulatory concept that culminated in 2008 with the “Consensus Model.”

**Conclusion:** The APN concept in the U.S. has shifted from educational and clinical specialization to a regulatory framework.

**Significance:** Understanding APN's evolving nature and varied interpretations is vital, especially for countries developing different APN models.



1203

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### Construction of Core Competence Evaluation Index System for Advanced Practice Nurses in Cancer

**Juan Gao<sup>1</sup>**

<sup>1</sup>Jiangsu Provincial Hospital of Traditional Chinese Medicine, Nanjing, China

**Background** Cancer prevention and control pose a global challenge, which has become a major public health issue. Therefore, strengthening tumor prevention and control capabilities is the focus of future work. The lack of oncology professionals is an important factor limiting their ability to play. In response to this issue, foreign countries have cultivated and utilized advanced practice nurses for management, However, China is currently in the exploration stage of advanced practice nurses.

**Objective** To construct the evaluation index system of the core competence of oncology advanced practice nurses, providing a reference for the training and evaluation of oncology advanced practice nurses.

**Methods** The oncology advanced practice nurses were prepared by referring to literature and research group discussion. From March to May 2023, 20 experts were consulted by Delphi method for two rounds to complete the screening and modification of the index.

**Results** The evaluation index system of the core competence of oncology advanced practice nurses included 6 first-level indexes, 20 second-level indexes, and 42 third-level indexes. The authority coefficients of the two rounds of expert consultation respectively were 0.889 and 0.912, and the effective response rates were 100%. The Kendall harmony coefficients of the first, second, and third indexes of the first and second rounds of expert consultation were 0.076、0.157、0.193 (P<0.001) and 0.046、0.189、0.226 (P<0.001).

Conclusion The evaluation index of the core competence of oncology advanced practice nurses constructed in this study is scientific, reasonable, comprehensive, and targeted, which can provide a reference for the training and evaluation of advanced practice nurses in the oncology department.

Significance It can Improve the level of cancer care and promote the development of the oncology discipline.



20

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **The Advanced Practice Nurse Perception in Master of Science Nursing Students**

**Dr Cinzia Gradellini<sup>1</sup>, Dr Nicola Ramacciati<sup>2</sup>, Prof Cesarina Prandi<sup>1</sup>, Prof Monica Bianchi<sup>1</sup>**

<sup>1</sup>University of Applied Sciences and Arts of Southern Switzerland, Manno, Svizzera, <sup>2</sup>University of Calabria, Cosenza, Italy

The preparation of the thesis requires the development of competencies such as knowledge, comprehension and integration, complexity management, judgments, and dissemination, to pursue studies and research, autonomously. This process is recognized as an indicator for the evaluation of educational offerings (Akçay et al., 2018). Although the interest in the thesis path is increasing, there is a lack of research related to this process, even less when referring to a Master of Science/MS, with a focus on the preparation of Advanced Practice Nurses (APN). In consideration of the APN's competencies, this study followed the Hamric & Hanson Model/HHM (Barca et al., 2021).

Objectives: To assess the acquisition of knowledge about the APN role, considering the competencies indicated by the HHM, in the first cohort of students who completed the MS.

Methods: This study is a qualitative analysis via a documentary observational methodology of the thesis. The HHM has been used for the content analysis.

Results:

Nineteen theses have been analyzed showing the comprehension and possible application of role and related HHM competencies. Clinical practice points to quality, multidimensional approach, and use of evidence. As a leader, the APN listens, and supports the team, promoting interprofessional collaboration. He/she has a fundamental role in coaching, ethical decision-making, and has been seen in health policy planning, not only as directly responsible for care.

Conclusion: It emerges a full awareness of the APN role as well as the ability to propose the inclusion and the application of the acquired skills in health contexts. The APN is described as promoter of a new professional culture, able to answer changes that will respond to the growing multidimensional complexity of healthcare contexts.

Significance: Thesis analyses demonstrated to be rich in content and complete, showing all students acquired competencies knowledge, ability to manage complexity, be proactive, and pursue research.



1149

Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Attention Economy Perspective on Healthcare Health Science Video Creation**

**Xiaofeng Guan<sup>1</sup>, Han Zhang<sup>1</sup>, Haihong Qu<sup>1</sup>**

<sup>1</sup>Shanghai Pudong Hospital, Shanghai, China

In tandem with the rising living standards and increased health consciousness, there is a growing demand for preventive healthcare. In China, the State Council has promulgated the "Healthy China 2030" plan, outlining initiatives to advance the construction of a healthier nation. One key directive is to enhance health education service capabilities, utilizing new media to expand health education and intensify popular science outreach. In recent years, short videos in China have witnessed explosive growth, reaching 1.051 billion internet users as of June 2022. The short video user base stands at 962 million, accounting for 91.5%, marking an increase of 28.05 million compared to 2021. Short videos have the unique ability to break through temporal and spatial barriers, delivering information to users in a more direct and intuitive manner.

In the era of Digital Economy 2.0, the process of short video content production and value realization hinges on attention, a quantifiable metric that has become a crucial benchmark for assessing the success of short videos. Hospitals, as key players in health education, face the challenge of retaining user attention in the saturated short video market where attention is scarce. In this environment, it becomes imperative for hospitals to explore how to leverage digital media to captivate user attention and promote national health.

This paper, recognizing the characteristics of the digital media landscape, aims to provide insights into the creation of health education videos through a comprehensive approach encompassing topic selection, content development, visual representation, and effective presentation. By fully leveraging hospitals' role in health education, continually refining health education video dissemination strategies, and enhancing the impact of health education information on patients, we can collectively elevate the overall public health awareness.



1021

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### One Approach to Advanced Practice CPD

**Lizanne Hamilton-Smith**<sup>1</sup>

<sup>1</sup>NHS 24, Glasgow, Scotland

Background: Advanced Practice (AP) is a defined level of practice within clinical professions designed to transform and modernise pathways of care, enabling the safe and effective sharing of skills across professional boundaries. While quality assurance and regulation discussions are in progress, currently professional healthcare bodies recommend developing a continuous practice development (CPD) model for the advanced practitioner to demonstrate continual competency and capability within their scope of professional practice. Advanced practitioners work across diverse healthcare settings with the expectation to complete 3.75 hours minimum of CPD per week. However, this is not always achievable, as cognisant of the political, economic, social, and technological influences that can impact the national strategic and workforce plans.

Objectives: Implement a sustainable blended learning approach to develop a global community of evidence-based advanced contemporaneous practice developments.

Methods: Initiate a national consistent approach strategic multi-professional plan to meet the ever-evolving advanced practice competencies portfolio and map to the varied core capabilities, competency, legal, and regulatory frameworks to meet individual's personal, academic, and professional obligations. For equity and parity, use national digital platforms as a central access point for evidence-based teaching and learning materials. To review the stimulus, listen to the advanced practitioner voice via educational needs analysis, discussions, and anonymous questionnaires to progress learning opportunities.

Results: Positive engagement with the twenty-five workshops to date with collaboration with our local, regional, national, and international advanced practice communities.

Conclusion: Implementation of a national approach to CPD has undoubtedly evolved an innovative, cohesive, and collaborative advanced practice community. Utilising our various modus operandi to effectively support advanced practice transformations across the whole health and social care system!

Significance: The growth has demanded the development of a national CPD committee with adaptable and agile attitudes, and partnerships working across boundaries and infrastructure to invest and promote our contemporary advanced practice.



1129

Theme: Investing in the APN Health Workforce

### Advanced Practice Nurses' experiences of working in primary health care in Western Finland - the first step of an action research project

**R Ruwang Han**<sup>1</sup>, Prof Melanie Rogers<sup>1,2</sup>, Dr Sofia Asplund<sup>1</sup>, Prof Lisbeth Fagerström<sup>1</sup>

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Background: Advanced Practice Nurses are now present in over 100 countries. One of the most topical issues in Finland is access to care, service provision, and treatment for patients with acute health problems, and in addition, Finland faces workforce shortages. In Finland education for Advanced Practice Nurses started in 2006, however, the Advanced Practice Nurses' scope of practice and expertise seem to remain underutilised in many regions. This study is part of an action research project between the university and the regional health care and welfare organisation in Western Finland. The goal of this four-year project is to further develop and evaluate advanced practice nursing models in primary health care. The first step of the project is to map the current state of advanced practice nurses' scope of practice.

Aim: This study aimed to describe the Advanced Practice Nurses' experiences of working in primary health care.

Methods: The data was collected by individual and focus-group interviews utilising a semi-structured interview guide. Interviews were transcribed verbatim, and data was analysed descriptively utilising inductive content analysis.

Key results: The main themes include: practice patterns on an advanced level, developing a meaningful and trusted role, invisibility of the role and limited organisational support. Data from each theme will be presented during the presentation.



Conclusion: Despite a level of support from coworkers and self-achievement, Advanced Practice Nurses are partially dissatisfied with their jobs due to lack of Advanced Practice Nurse positions, restricted scope of practice and limited salary increases. Advanced Practice Nurse roles and models need to be developed for this role to impact service provision in Finland.

Significance: The results of this study will be a beneficial resource for creating a strategic plan for Advanced Practice Nurses models in the actual region and will be discussed with partners and leaders of the project.



1122

Theme: APN's Role in Shaping a Healthier, More Equitable World

**Impact of Northern Ireland 1st ANP Led Cardiac Valve Surveillance Clinic pilot initiative on the review of moderate to severe aortic stenosis patients. Siobhan Herdman ANP, Dr P Donnelly Cardiologist**

**Sarah Herdman**, Dr Patrick Donnelly  
<sup>1</sup>Southeastern Trust NI, Belfast, United Kingdom

Advanced Nurse Practitioner Led Cardiac Valve Surveillance Clinic was introduced in the South Eastern Trust to provide a single point of contact for patients coordinated care, clinical interventions and follow-up review. Prior to the clinic initiative patient were assessed at the over populated out-patient clinics, this avenue resulted in lengthy delays and time windows for evaluation and treatments were suboptimal. ANP Cardiac Valve Surveillance Clinic was developed in 2021 and is the first of its type in Northern Ireland.

To reduce waiting times, adherence to current guideline review times and provide a coordinated holistic care bundle that facilitates clinical evaluation, diagnostic testing, timely clinical interventions.

A cohort of 257 patients with aortic stenosis were identified. A subgroup of 42% (n=107) were classified as moderate aortic stenosis, 16% (n=43) as severe aortic stenosis and appointed to the novel valve clinic. An audit of the data examined the current waiting times for patient seen at the consultant led out-patient clinic and the adherence to European Society Cardiology (ESC) review guidelines.

Consultant led clinic showed waiting times for referrals was approximately 122 weeks from the date of referral. Adherence to follow on review times as per the ESC guideline 1-year timeframe was 45%. An audit in 2022 of the ANP led clinic demonstrated an overall waiting time of 15 weeks for review and an adherence to ESC guidelines of 88%.

This new initiative ensures timely access to appropriate services, enhanced clinical effectiveness and patient experience. The service audit completed in 2022 following its introduction demonstrates a significant reduction in patient waiting times and marked improvement in compliance with current guidelines for review.

The utilisation of surveillance clinics reduces GP consultations and mortality rates. Early detection of progression of valvular disease, improved early intervention, avoidance of unnecessary hospitalisation and costly cardiac compromise.



1218

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**The Merging Landscape of Nurse Practitioner Preceptors**

**Dr Rodney Hicks**<sup>1</sup>, **Dr Mary Ellen Roberts**<sup>1</sup>, **Dr Judith Berg**<sup>1</sup>  
<sup>1</sup>Western University of Health Sciences, College of Graduate Nursing, Pomona, United States

Background: The demand for healthcare services continues to surge and diversify. The pivotal role of nurse practitioners (NPs) in delivering primary and specialty care remains steadfast and will only increase. The need for NP preceptors to mentor and train the next generation has amplified and continues to shape the critical facet of advanced practice nursing. The landscape of NP preceptorship is undergoing a transformative shift characterized by multifaceted elements, including ever-changing landscapes and educational paradigms.

Key Learning: The number of NP programs, specialties, and NP students has risen. These increases require additional clinical placement and place immense pressure on preceptor availability. This challenge is exacerbated by the ongoing shortage of healthcare providers and the complexities of the modern healthcare system. Consequently, innovative approaches to recruit, train, and retain preceptors have become imperative.

Moreover, the evolving healthcare environment, marked by technological advancements, intricate patient populations, and shifting policy landscapes, necessitates an updated skill set for NP preceptors. Beyond clinical expertise, preceptors now require proficiency in telemedicine, interprofessional collaboration, and population health management.

The COVID-19 pandemic catalyzed a rapid adoption of telehealth, altering care delivery and subsequently impacting NP preceptorship. Preceptors had to swiftly adapt their teaching methods to accommodate virtual clinical experiences while ensuring quality education and supervision. Furthermore, the need for diversity, equity, and inclusion in healthcare has accentuated the call for a more diverse preceptor pool to serve an increasingly heterogeneous patient population better. Embracing diverse perspectives among preceptors enriches the educational experience and fosters culturally competent care.

Significance: Addressing these challenges and embracing opportunities for innovation in NP preceptorship is pivotal to ensuring the continued development of competent and adept NPs. This presentation encapsulates the shifting terrain of NP preceptorship, acknowledging the imperative need for adaptation, support, and advancement to meet the evolving demands of healthcare and education.



683

Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Construction and application of a full course case management model in patients with acute ischemic stroke undergoing intravenous thrombolysis**

**Duoduo Hou**<sup>1</sup>

<sup>1</sup>Beijing Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing, China

Background: The number of cases of intravenous thrombolysis in acute ischemic stroke is increasing, but the long-term standardized management of patients still lacks effective measures. The full course case management model provides new ideas for the management of such patients.

Objective: To construct a comprehensive case management model for acute ischemic stroke patients undergoing intravenous thrombolysis, providing reference basis for the management.

Method:

1. Build a full course case management model: Based on clinical practice and guidelines, build a full course case management model, including management measures for acute, recovery, and sequelae phases, to meet the treatment and nursing needs of patients at different stages.
2. Establish a full course case management team: Establish a case management team including case managers, neurologists, nurses, rehabilitation physicians, technicians, etc.
3. According to the full course case management model, 130 patients with acute ischemic stroke who underwent intravenous thrombolysis were intervened for one year through three major steps: collection, management, and closure.

Result: After 1 year of intervention, the registration completeness rate was 100% (130/130), the tracking completeness rate was 95.4% (124/130), the disconnection rate was 4.6% (6/130), the smoking cessation rate was 75.6% (34/45), the alcohol cessation rate was 85.1% (40/47), medication adherence was 91.6% (109/119), the one-year mortality rate was 4.0% (5/124), the one-year recurrence rate was 8.9% (11/124), and the satisfaction rate was 98.3%.

Conclusion: The full course case management model can provide comprehensive medical care support for patients, change their unhealthy habits, improve medication compliance, and improve patient satisfaction.

Significance: The full course case management model has good application prospects in patients with acute ischemic stroke undergoing intravenous thrombolysis, and is worthy of further promotion and application in clinical practice.



1254

Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **An Overview of Nurse Practitioners in Canada: A National Perspective from the Nurse Practitioner Association of Canada**

**Dr Laura Housden**<sup>2</sup>, Dr Jennifer Beaveridge, Dr Stan Marchuk

<sup>1</sup>Nurse Practitioner Association of Canada, Vancouver, Canada, <sup>2</sup>Fraser Health Authority, Surrey, Canada

Background: The Nurse Practitioner Association of Canada (NPAC) was established in April 2017, and is stepping into a pivotal role advocating and shaping the landscape of healthcare delivery in Canada.

Objectives: This discussion provides a comprehensive examination of Nurse Practitioner (NP) employment models, leadership structures, education, and regulation across Canada. It delves into the evolution of the NP profession in Canada and presents a strategic set of recommendations aimed at advancing the role of NPs.

Approach: We will begin by exploring the various employment models adopted by NPs throughout Canada, sharing the diverse approaches taken in different provinces and territories, including medical staff integration. We will also address the varying leadership structures that NPs operate within, emphasizing the importance of NP led leadership frameworks to support and strategically influence the growth of NP practice. We will also examine educational and regulatory aspects of the NPs in Canada, with emphasis on the importance of regulatory frameworks that support the evolving scope of practice for NPs.

Key Learnings: Strategic recommendations are proposed to propel the NP profession forward, taking into consideration the recent federal funding commitments to provinces and territories and the opportunity for federal regulation and registration for NPs across Canada.

Significance: The growing NP workforce and the expansive scope of practice in Canada necessitate a broad understanding of NP roles and opportunities and strategic engagement by the national association to address the increasing demand for primary and acute care services. The evolving needs of the Canadian population underscore the significance of positioning NPs as key contributors to the healthcare system evolution. The discussion will conclude with a call to action, highlighting how the NP profession is well situated to meet the diverse and expanding healthcare needs of the Canadian population.



503

Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

### **Prediction model and nomogram for severe radiotherapy-induced oral mucositis among patients with nasopharyngeal carcinoma: A prospective longitudinal study**

Juejin Li<sup>1</sup>, **Prof Xiaolin Hu**<sup>1</sup>

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Background: Radiotherapy-induced oral mucositis (RIOM) is the most common and distressing side effect among nasopharyngeal carcinoma (NPC) patients, which could impact patients' quality of life and the treatment adherence, finally lead to poor cancer prognosis. However, there were no effective approaches for RIOM. Prediction model could be used for stratifying and identifying the high-risk patients of severe RIOM, and instructing clinical nurses to provide effective and precise interventions to decrease the risk of RIOM. But there is a lack of prediction model and nomogram for severe RIOM among NPC patients.

Objectives: To identify modifiable risk factors and establish a prediction model and nomogram for severe RIOM among NPC patients.

Methods: A prospective longitudinal study was conducted among NPC patients. Demographic, behavioral, treatment-related, psychosocial, and physiological factors were collected. Univariate and stepwise multivariable COX proportional hazard regression analyses were performed to establish a prediction model. A nomogram was used to visualize the model. C-index and calibration curve were used for model evaluation. All data analyses were conducted in R studio software.

Results: A total of 200 NPC patients were included, and more than a half (50.5%) experienced severe RIOM. Marital status, greasy diet, oral hygiene, oral radiation volume, sequential radiotherapy, and the count of red blood at baseline were included in the prediction model. C-index and calibration curve showed acceptable discrimination ability and calibration accuracy of the prediction model.

Conclusion: This study established and validated a prediction model for severe RIOM among NPC patients, which showed well discrimination and calibration. An easily used nomogram was developed for clinical application.

Significance: This study identified modifiable risk factors for preventing severe RIOM among NPC patients, and provided guidance to take timely and precise measures for high-risk patients of severe RIOM.



### **Associations between digestive diseases, frailty and depression, and mild cognitive impairment in elderly adults: A cross-sectional analysis of a cohort study**

**Prof Yonghong Hu**<sup>1</sup>, Tao Wei<sup>1</sup>, Prof Xuying LI<sup>1</sup>

<sup>1</sup>Hunan Cancer Hospital, Changsha, China

**Background:** Digestive diseases, frailty and depression are commonly seen and treatable symptoms in older adults and are associated with cognitive decline. However, it is unknown whether these symptoms are independently associated with cognitive decline and how they interact with each other creating a greater impact on cognitive decline than individual symptoms.

**Objectives:** To determine independent associations of digestive diseases, frailty and depression, and mild cognitive impairment (MCI) in older adults.

**Methods:** We used a cross-sectional analysis of a cohort study including 6749 from the 2015 waves China Health and Retirement Longitudinal Study (CHARLS). Aging-associated cognitive decline is used to define MCI, and cognitive function is measured based on four dimensions: orientation, computation, memory, and drawing. Digestive diseases were identified using self-report. Frailty status was determined by five criteria of the Physical Frailty Phenotype: exhaustion, low physical activity, weakness, slowness, and shrinking. Depressive symptom was assessed using the 10-item Center for Epidemiologic Studies Depression Scale (CES-D). Logistic regression models were used adjusting for sociodemographic, health-related and behavioral covariates.

**Results:** Independent associations with mild cognitive impairment were found in frailty (odds ratio [OR]: 2.05, 95% CI: 1.70, 2.40), digestive diseases (OR: 1.53, 95% CI: 1.24, 1.82) and depressive symptom (OR: 3.52, 95% CI: 2.84, 4.20). Interaction terms between digestive disease and frailty (OR: 1.24, 95% CI: 1.14, 1.35), and between digestive disease and depressive symptom (OR: 2.32, 95% CI: 1.52, 3.12) were significant, suggesting a synergistic impact on mild cognitive impairment.

**Conclusions:** Digestive diseases, frailty and depression are independent risk factors of MCI and may have a synergistic impact on MCI.

**Significance:** Interventions should be developed to address these symptoms to reduce the adverse effects of MCI.



1211

Theme: The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing

### **Advanced Practice Nurse-led multidisciplinary teams in healthcare settings: A scoping review**

**Jingying Huang**<sup>1</sup>

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**Background:** The advanced nurse practitioner (APN) represents a substantial supply of primary care providers able to contribute to meeting a growing demand for care. While specialized nurses traditionally played supportive roles in conventional multidisciplinary teams (MDTs), the potential benefits of implementing the APN-led collaborative approach remain uncertain. Therefore, it is essential to guide practice on how APNs can enhance team value more effectively.

**Objectives:** To provide a comprehensive overview of characteristics of APN-led participation within MDTs in primary care settings.

**Methods:** A scoping review was conducted using the Arksey and O'Malley framework and reported following PRISMA-ScR. Eight databases (PubMed, CINAHL, Cochrane Library, Web of Science, Wiley-Blackwell, CNKI, Wanfang and Chinese Biomedical Literature Database) were searched to identify studies published in English and Chinese between January 2002 and January 2024.

**Results:** 7707 citations were considered, and 52 studies were included in the final review. Most multidisciplinary studies directed by APNs addressed oncology, diabetes, heart failure, geriatrics, and palliative care. The roles undertaken by APNs in multidisciplinary teams were diverse, encompassing patient case management and clinical practice, team collaboration and communication, training in the professional skills of registered nurses, programme quality management and related research. The evaluation of clinical outcomes focuses on patients' symptoms, satisfaction, and cost-effectiveness while also concentrating on the expertise and involvement of healthcare professionals in multidisciplinary collaboration. However, APNs have not fully exhibited their leading role in areas including autonomy in clinical decision-making and effective integration and coordination of team resources.

Conclusions: The APN-led multidisciplinary team was perceived as an effective approach to improving patient outcomes and developing a positive team experience.

Significance: In the future, the APN role needs more autonomy within multidisciplinary teams to enhance the effective integration and coordination of team resources.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**An early nursing intervention of oral care and transcutaneous neuromuscular electrical stimulation for acute Ischemic stroke patients with dysphagia: a pilot randomized-controlled study**

**Yiting Huang**<sup>1,2</sup>, Dr Chen-Chih Chung<sup>2,3</sup>, Associate Prof Chia-Chun Tang<sup>1,4</sup>

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Background: Stroke, a major global health issue, is the second leading cause of death and disability in adults, often leading to post-stroke pulmonary complications linked to dysphagia. Early detection and intervention are crucial to prevent complications, yet existing studies primarily focus on stable patients, neglecting very early post-stroke care.

Objectives: This study aimed to (1) assess the feasibility of two interventions-oral care and oral care plus transcutaneous neuromuscular electrical stimulation therapy (TNES), and (2) evaluate their effects on dysphagia and post-stroke pneumonia during the acute phase of stroke.

Methods: A randomized-controlled trial with a parallel design involved three groups: oral care (A), oral care plus TNES (B), and standard care (C). Interventions started within 48 hours of stroke onset. Primary outcomes measured swallowing ability using Gugging Swallowing Screening and EAT-10 Questionnaire, while secondary outcomes included post-stroke pneumonia incidence. Statistical analyses employed One-way ANOVA, Scheffe post hoc testing, chi-square testing, and Generalized Estimating Equations.

Results: Among 37 participants, 13 and 10 completed interventions in groups A and B, respectively, with no adverse events. Group B showed significantly improved swallowing function compared to A and C. Both A and B demonstrated a significantly lower incidence of post-stroke pneumonia than C.

Conclusion: Early-stage interventions of oral care and oral care plus TNES are feasible and safe, significantly improving dysphagia and reducing post-stroke pneumonia. These findings offer valuable insights for managing pneumonia in acute cerebral infarction and dysphagia, emphasizing the importance of early interventions for enhanced clinical care quality.

Significance: This study contributes to limited research on very early post-stroke rehabilitation, providing insights into reducing stroke-related pneumonia incidence globally and improving care for acute cerebral infarction and dysphagia patients.



**Posters - First presenting author Surname: I**

**NPAPN24036(1)**

**Development and implementation of advanced practice nursing in Switzerland**

**Prof Dr Romy Mahrer Imhof**

Nursing Science & Care Ltd.

The journey to develop and implement advanced level nursing within Switzerland will be explored and how this is now well established, and they progress on the roadmap. The presenter will reflect on this journey and discuss what strategies have worked and how the National nursing association are influencing this.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Can the use of clinical frailty screening by District Nurse ANPs improve access and quality of care for people within a DN caseload?**

**Shannon Jamieson, Lisa Stallerbrass**, Eilaine White  
1NHS Tayside, Dundee, United Kingdom

Introduction: The Transforming Roles Programme by the Scottish Government (2017) emphasises the crucial role of integrated community nursing teams in assisting individuals with complex health and care needs. The new advanced nurse practitioners (ANP) within these teams aim to drive the delivery and facilitation of advanced decision-making, aiming to ensure individuals receive high-quality care, leading to improved health outcomes and reduced health inequalities. Frailty is not an inherent aspect of aging; however, it can result in severe adverse outcomes, especially following minor incidents, if not promptly recognised and addressed (BGS 2017). Numerous tools have been created to identify frailty (HIS 2018). Clinical frailty screening (CFS) tools use questions or criteria to assess an individual's physical and functional status, including mobility, cognition, and daily activities. The screening results help customise care plans for frail individuals, aiming to prevent adverse health outcomes and enhance overall well-being (HIS 2018).

Objectives: This poster aims to explore the impact and value of the ANP role in the DN service through implementing a clinical frailty screening tool to improve patient outcomes.

Approach: The AP will use leadership strategies, governance, and communication and education strategies to implement the CFS tool across the MDT within two chosen DN caseloads within the east of Dundee. Following the review of the chosen caseloads, 91% of individuals were over the age of 65, determining that the Rockwood Clinical Frailty Scale (Rockwood 2007) is an appropriate CFS tool. A review of the people on a DN caseload will determine their current frailty score and the need for a comprehensive geriatric assessment.

Conclusion: Once this data is collected and analysed the ANP will work across the four pillars of practice to improve identification of frailty and access the right care and the right time to enhance patient care on the DN caseload.



(Virtual Poster) 1201

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**The breakthrough of cultivating models for Advanced Practice Nurse in China**

**Dr Hua Jiang**<sup>1</sup>, Dr Mingzi Li<sup>1</sup>, Dr Yue Lu<sup>1</sup>, Dr Shaomei Shang<sup>1</sup>  
<sup>1</sup>Peking University Health Science Center, Beijing, China

Background: China has a large aging population, an extremely high prevalence of NCDs, and a significant shortage of primary care physicians. APN has successfully expanded the roles of nurses to parallel the primary care physicians in some countries.

Objectives: To develop the localized and feasible APN cultivating models both for graduates and on-job trainees in China.

Methods:

1. Preliminary stage

- Literature review, faculty visiting abroad, and international academic conferences were held to learn the APN role. Experts meetings were conducted to discuss and confirm the competency and role suitable for Chinese APN.
- A high-quality team of multi-disciplinary faculties were cultivated, including doctors, nurses, pharmacists, public health and primary care professionals. Famous and experienced international APN educators and national experts were invited to train our APN program tutors.

2. Growing stage

- The first NP master students were recruited in 2017. The first APN on-job trainees were recruited in 2019.
- To establish the core curriculum for APN, which included lectures, lab exercises, standardized patients, high-fidelity simulation, and critical thinking scenarios.
- To establish the practice training model for APN, which included both medical practice and nursing practice, both large hospitals and primary care settings.

Results:

1. Peking University developed the NP master curriculum with seven core courses. The 24-months rotation model for NP practice training was established.

2. Peking University developed APN on-job trainees' curriculum with six core courses The 4-months rotation model for APN on-job trainees was established.

Conclusion: APN cultivating models by Peking placed emphasis on independent clinical thinking, judgement and skills. Further promotions are demanded in different regions of China.

Significance: Our exploration was pioneering and forward-looking, which filled in the gaps in APN fields in China. Peking University set an example in exploring new nursing roles and made extraordinary contributions to cultivate APN.

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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **The impact of digital age on tele-care and health monitoring technology for long-term home oxygen therapy patients with chronic obstructive pulmonary disease**

Hongjing Lin<sup>1</sup>, Yanbing Jiang<sup>1</sup>, Qin ZeYu<sup>1</sup>

<sup>1</sup>First Hospital of Jilin University

To explore the impact of the digital age on tele care and health monitoring technologies for long-term home oxygen therapy patients with chronic obstructive pulmonary disease (COPD).

With the development of Internet and communication technology, telenursing and health detection technology have become a new trend. Patients with COPD requiring long-term home oxygen therapy in the inpatient ward of respiratory medicine of a grade-III hospital in Jilin Province from January 2023 to April 2023 were selected and randomly divided into observation group and control group, with 30 cases in each group. After discharge, patients in both groups were required to receive long-term home oxygen therapy and receive health guidance at discharge. The observation group used telenursing technology, and nurses communicated through the Internet to provide care and guidance for pulmonary rehabilitation exercises, etc. The health detection technology was used to conduct long-term and real-time monitoring of patients' physiological indicators and timely intervention when necessary. The control group was followed up according to the follow-up system. After half a year follow-up, the changes of lung function, blood gas index, home oxygen therapy time, overall health status, acute attacks and re-hospitalization rate were compared.

At the end of follow-up, FVC, FEV1 and PaO<sub>2</sub> in observation group were higher than those in control group, and PaCO<sub>2</sub> was lower than those in control group, and the difference was statistically significant ( $P < 0.05$ ). The duration of home oxygen therapy in the observation group was significantly higher than that in the control group, and the number of acute attacks and hospitalization rate were significantly lower than that in the control group, with statistical differences ( $P < 0.05$ ).

Telenursing and health monitoring technology can effectively improve patients' compliance, reduce the number of acute attacks, delay the course of disease, improve the quality of life and overall health.

766

Theme: Investing in the APN Health Workforce

### **Advanced Practice Nursing development in Finland**

Anna Suutarla<sup>2</sup>, Dr Krista Jokiniemi<sup>1</sup>, Dr Anna Axelin<sup>3</sup>, Dr Mervi Flinkman<sup>4</sup>, Sini Hämäläinen<sup>5</sup>, Dr Tuija Lehtikunnas<sup>6</sup>, Dr Virpi Sulosaari<sup>7</sup>, Dr Annukka Tuomikoski<sup>8</sup>

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Background: Advanced practice nursing (APN) has been developed during the past two decades in Finland. The two best-known roles are clinical nurse specialist (CNS) and nurse practitioner (NP). The Finnish Nurses Association (FNA) set up an expert working group for the first time in 2013 to describe the APN situation in Finland. Now, nearly a decade later, this work has been updated, and recommendations have been released to go forward with the APN implementation in the coming years.

Aims: The purpose of this evidence-informed policy update process was to re-evaluate the current APN situation in Finnish social and healthcare.

Method: The evidence-informed policy and practice pathway framework was utilized. Multiple methods such as a scoping review of literature, interviews of key informants, and expert group round-table discussions were conducted between 2021 and 2022.



Results: There have been some positive developments in the APN role implementation during past years. However, there is still variation at national level regarding titles, education, and work descriptions. Furthermore, only little effectiveness research has been conducted. Based on FNA expert panel work, recommendations for APN roles for the coming years include harmonization of the titles and roles, development of education, adaptation of legislation, and evaluation of role outcomes. Close collaboration between the education system, working life, and regulation is a requirement in role development. Finally, organizations need to produce and analyze data to evaluate the effectiveness of APN roles.

Conclusion: The introduction of APN job description requires close collaboration between different actors. The development of job descriptions and fully implemented roles requires political, organizational, and managerial support, continuous evaluation, as well as good cooperation between registered nurses.



1281

Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Building a new model for symptom cluster management for lung cancer patients at home after surgery based on advanced nursing practice concepts**

**Lu Kang**<sup>1</sup>

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Background: Due to surgical stress and negative effects related to cancer, 79.8% of lung cancer patients experience symptoms such as pain, cough, dyspnea, fatigue, and anxiety after surgery, severely affecting their quality of life. It is particularly important to cultivate advanced practice nurses in thoracic surgery to provide continuous high-quality symptom management for discharged patients.

Objective: To construct and preliminarily verify a new model for symptom cluster management for lung cancer patients at home after surgery.

Methods: Construct and verify a model for symptom cluster management for lung cancer patients at home after surgery based on advanced nursing practice.

Control group: Implementation of routine discharge health education and symptom management guidance for lung cancer patients after surgery.

Intervention group:

1. Establish patient records and provide training for patients and their families on the use of the new media platform.
2. Assess the patient's condition and develop a home symptom cluster management plan.
3. Guide patients to assess, manage, and provide feedback on symptoms according to the management plan.
4. Guide patients to utilize the professional consultation module of the new media platform for immediate online consultation and to make appointments for offline hospital follow-up visits.

Record and compare the changes in lung cancer-specific modules and quality of life between the control and intervention groups.

Results: The intervention group had significantly lower rates of cough, sputum, and chest tightness symptoms compared to the control group, and the quality of life of the intervention group was higher than that of the control group, with statistical significance.

Conclusion: Continuous symptom management after surgery is beneficial to improve the quality of life of patients.

Significance: Continuous symptom management after surgery is beneficial to improve the quality of life of patients.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Implementing an online workload measurement instrument for nurse practitioners: A feasibility study**

**Dr Kelley Kilpatrick**<sup>1</sup>, Ms Véronique Landry<sup>2</sup>, Dr Eric Tchouaket<sup>3</sup>, André Daigle<sup>4</sup>, Mira Jabbour<sup>5</sup>

<sup>1</sup>McGill University, Montréal, Canada, <sup>2</sup>Université de Montréal, Montréal, Canada, <sup>3</sup>Université du Québec en Outaouais (UQO), St-Jérôme, Canada, <sup>4</sup>Université de Moncton, Moncton, Canada, <sup>5</sup>CIUSSS de l'Est-de-l'Île-de-Montréal, Montréal, Canada

Background: Access to primary healthcare is a global issue. Workload and the number of patients seen by nurse practitioners are important considerations to improve access to care. Measuring nurse practitioner workload presents major challenges. Studies so far have not taken into account patient, provider and organizational characteristics when determining the length of health visits and number of patients seen by nurse practitioners in primary care, home care and long-term care.

Objectives: To assess the feasibility of implementing an online workload measurement tool for nurse practitioners in different primary care settings.

Methods: A feasibility study is underway across three sites. Data will be collected (January-March 2024) from three implementation teams, nurse practitioners (n=100), decision-makers and physicians (n=20) and patients (n=30) using field notes, weekly implementation team meetings, an 8-item questionnaire of acceptability and interviews. Content analysis and descriptive statistics will support data analysis. Data integration will occur at the end of the analysis using joint displays.

Results: The workload instrument is online in English and in French. Site implementation teams have been identified and the roll-out begins January 23rd 2024.

Conclusion: This new knowledge will facilitate the adoption of an innovative instrument and help improve its operation with a view to wider implementation in other jurisdictions. The instrument will make it possible to take into account several factors that influence the length of patient health visits.

Significance: Greater equity in resource allocation and workload distribution for nurse practitioners could ultimately improve access to care. Decision-makers and other healthcare professionals can apply the lessons learned to effectively manage workload.



793

Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Developing Global Leaders Through the Nurse Practitioner/Advanced Practice Nurse Doctor of Nursing Practice Scholarly Project**

**Dr Debra Kosko<sup>1</sup>, Dr Wendy Thal<sup>2</sup>**

<sup>1</sup>Georgetown University, Washington, United States, <sup>2</sup>Texas Tech University Health Sciences Center, Lubbock, United States

Background: Doctor of Nursing Practice (DNP) prepared nurse practitioner (NP)/advanced practice nurse (APN) brings a specific skill set honed through a rigorous field of study that enables them to provide the highest level of care across diverse patient populations. While the DNP project enables the NP/APN student to demonstrate expertise in evidence-based practice through the development of a quality improvement program using translational research methodologies, a global DNP project expands their world view to further develop as global leaders in health care. Collaborating with international non-governmental organizations, the DNP-NP/APN student expands their networking skills with both global and local community stakeholders to improve the health of populations. The student utilizes the social determinants of health (SDOH) and cultural humility to identify specific concerns that could benefit from a student-led project. Low-and-middle-income countries may lack the necessary resources to bring a needed project to fruition, whereas an NP/APN doctoral student has the time and passion to be that resource.

Approach: Integrating scholarly projects into university-led global health programs allow the DNP NP/APN student access to dedicated faculty and learning opportunities that may not be available in their home communities.

Key Learning: Opportunity to study differing health care systems and immerse in a new culture during development of a scholarly project develops the necessary skills to serve as a NP/APN leader on the global healthcare stage.

Objective: The purpose of this presentation is to share examples of global DNP projects with a foundation in the SDOH. Significance/Conclusion: Global DNP projects can develop NP/APNs students into strong leaders who help shape a healthier, more equitable world.



988

Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**What district nurses need to improve care for older individuals with multiple chronic health problems in primary care: a qualitative focus group study**

**Dr Annica Lagerin<sup>1</sup>, Dr Elisabeth Bos Sparén<sup>1</sup>, Dr Caroline Wachtler<sup>2</sup>**

<sup>1</sup>Marie Cederschiöld University, Stockholm, Sweden, <sup>2</sup>Marie Cederschiöld University, Stockholm, Sweden, <sup>3</sup>Karolinska Institute, Huddinge, Sweden

Background: This study aimed to examine district nurse (DN) experiences caring for people with multiple chronic conditions in an aging population. Over the next 10-year period in Sweden, the number of people aged 80 and older is will increase by about 50 percent. The care needs of the population are changing as more people live at home longer with chronic care needs. Since 2022, primary care has been acknowledged politically as the hub of health and medical care, interacting with other health and medical care and social services. DNs in primary care often have the first contact with patients of all ages and are especially involved in care of older individuals with multiple chronic conditions, common mental health problems, and complex care needs.

Objectives: To examine DNs' experiences of caring for patients with multimorbidity and mental illness

Methods: This was a qualitative study of five focus group interviews made with fifteen DNs working at five primary care centers in the Stockholm Region, Sweden. Data was analyzed using reflective thematic analysis. Analysis is in progress and results will be presented at the conference.

Results: Preliminary analysis has resulted in four subthemes: 1) DNs take responsibility for identifying and adapting to complexity; 2) Lack of effective cooperation leads to increased DN responsibility; 3) DNs see patient complexity as coherent and whole; 3) Too little space for DNs to use knowledge and competencies.

Conclusions: Further analysis is expected to produce findings that can be useful for development of primary care and in particular the role of the DN in caring for older individuals with multiple chronic conditions.

Significance: To meet the care needs of this growing population, it is critical to understand how DNs currently see their work with these patients and how they consider care can be optimized.



466

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**Advanced nurse practitioners (ANP'S) primary care education sessions. (CPD- education framework)**

**Carol Lamb<sup>1</sup>, Amanda Sloss<sup>2</sup>**

<sup>1</sup>NHS Lanarkshire, United Kingdom, <sup>2</sup>NHS Lanarkshire, United Kingdom

Background: Education is a key principle of the NMC Code of conduct (2018). The development of new roles in nursing have increased the focus on work based learning (Halse et al, 2018). Small group education sessions have proven to prevent 'silo working' and maximise the opportunities that build open inclusive connecting team work (Leadership academy).

Objectives: Incorporate Small group teaching sessions created by the team themselves, it has enhanced engagement, retention of knowledge and supports self-directed learning. As well as developing communication skills, team work ability and opportunities for peer discussion. (You could outline this as a SMART objective?)

Methods/ Approach:

- Bi- monthly education sessions
- Yearly planning
- Invite for all of the team to deliver at least one session over the calendar year.
- Power point presentation
- Sessions incorporate common presentations which link to the advanced practice competency framework

Key learning/ results

- Feedback given via TURAS and placed in sharepack to support facilitation of learning pillar
- Questionnaires to all staff attending for feedback on content and area for improvement
- Attendance rates reviewed
- Active encouragement of participation from the attendees to discuss their own experiences and reflection

- Ever evolving updates with up to date formulary, guideline and protocol supported evidence.

Conclusion: This programme encourages self-directed learning and sign posting for further reading by building trust and relationships, whilst developing confidence in presenting and formulating teaching opportunities. This gives trainees and ANPS the opportunity of ownership for individuals input of the education process.

Significance Impact and Reach: The Bi monthly sessions contribute to the adherence to CPD hours per week, as outlined as a minimum in the transforming nursing roles papers (Scottish Government, 2021). The use of Microsoft teams allows the whole team to join remotely and increases the reach of the education.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **Effect of advanced practice nurse management model on postoperative negative emotions in patients with breast cancer-related lymphedema**

**Fu Lan<sup>1</sup>, Wu Shaoyong**

<sup>1</sup>Institute for Breast Health Medicine, West China Hospital, Sichuan University, Chengdu, China

Background: Breast cancer-related lymphedema (BCRL) is a common complication after surgery, usually with concomitant negative emotions, such as anxiety and depression, which affected the quality of life. The management model of advanced practice nurses (APN) is an individualized care model that relies on multidisciplinary teams throughout the whole process of illness. However, there were few literatures on this model for BCRL patients mediated by APN in China.

Objective: To investigate the effects of APN management model on anxiety, depression and self-care ability of patients with BCRL. Methods: 86 patients with BCRL were randomly divided into intervention group and control group with 43 cases in each. The control group was given routine nursing, and the intervention group was given APN-mediated management on the basis of routine nursing. Baseline data of the two groups were collected, including general demographic data, lymphedema staging, self-rating anxiety scale (SAS), self-rating depression scale (SDS), the Exercise of Self-Care agency scale (ESCA). The changes of SAS, SDS and ESCA scores were compared 1 year later between the two groups. SPSS 23.0 software was used for statistical analysis.

Results: There was no significant difference in SAS, SDS and ESCA scores between the two groups at the beginning. After 1 year, SAS score ( $33.72 \pm 9.748$ ) and SDS score ( $32.74 \pm 8.902$ ) in the intervention group were significantly lower than those in the control group ( $38.47 \pm 11.371$  and  $36.88 \pm 10.294$  respectively) ( $P < 0.05$ ). The ESCA score of the intervention group ( $150.14 \pm 7.708$ ) was higher than that of the control group ( $144.51 \pm 12.084$ ) ( $P < 0.05$ ).

Conclusion: APN management model can alleviate the anxiety and depression of BCRL patients, improve their self-care ability. Significance: BCRL patients had a higher incidence of negative emotions, which were associated with adverse outcomes; APN model can improve patients' negative emotions and quality of life.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **Challenges in the Evolution of the Neonatal Specialized Nurse Role: A Qualitative Study from China**

**Yu Lang<sup>1</sup>**, Ling Yan, Lei Liu, Cheng Wen, Zhen Yang

<sup>1</sup>The First Affiliated Hospital of Army Medical University of Chinese People's Liberation Army, China

Background: Neonatal specialized nurses play a crucial role in the care of critically ill newborns, but they face various challenges and dilemmas in their role evolution. Particularly in a populous country like China with limited healthcare resources, neonatal specialized nurses face more complex work environments and career development restrictions. Therefore, understanding and exploring the challenges in the evolution of the neonatal specialized nurse role are crucial for improving their working conditions and enhancing nursing quality.

This research findings will provide valuable information for relevant decision-makers and nursing leaders to improve the working environment and career development opportunities for neonatal specialized nurses. Understanding and addressing these challenges serve as a foundation for effectively improving neonatal care quality and better meeting the needs of patients and their families. This not only has implications for neonatal specialized nurses in China but also serves as a reference for neonatal care in other countries and regions.

Objective: This study aims to explore the challenges in the evolution of the neonatal specialized nurse role in China, providing references for promoting the construction of neonatal specialized nurse teams.

Methods: Phenomenological research methods were adopted, and semi-structured interviews were conducted with 15 neonatal specialized nurses. The Colaizzi 7-step analysis method was employed to organize and analyze the data.

Results: Five themes were identified: incomplete policies and laws leading to role ambiguity, poor planning by management resulting in inadequate role development, lack of understanding of the role by colleagues and leaders, clinical responsibilities and stress, and asymmetrical professional compensation and responsibilities leading to limited career development.

Conclusion: Managers should address the challenges faced in the evolution of the neonatal specialized nurse role, promoting effective development and advancement of the role, and supporting personal and professional growth in their careers while providing high-quality care for newborns.



1439

Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **Preparing advanced clinical practitioners for complex patient management in long term conditions in the UK with an applied pathophysiology module**

**Prof Gerry Lee**<sup>1</sup>

<sup>1</sup>University College Cork, Cork, Ireland

Background: Long-term conditions are prevalent in many populations. Advanced practitioners need to be able to manage patients outside of their own specialty and optimise health in those with complex comorbidities. To address this need, a module was developed to deliver the pathophysiology related to multiple conditions and incorporating other factors that health and well-being such as climate change, cost of living crisis and inequality across society.

Objectives: To evaluate the module in terms of content, applicability to clinical practice and effectiveness of peer-based learning.

Methods: Online evaluation using a set of questions with a Likert scale was used as well as an opportunity to add comments in a free text section.

Results: A total of 90 students undertook the module (although optional, 90% of students enrolled in the MSc enrolled in the module over two semesters). The students were from a variety of professions including nurses, midwives, pharmacists, paramedics and physiotherapists and were working on both acute setting and in the community. A total of 58 students (65%) completed the online evaluation. From the 58 responses, 53 (91%) agreed that the module was intellectually stimulating and 54 (93%) reported that it had broadened their knowledge and skills. Overall, 53 were very satisfied/satisfied with the module and would recommend it to colleagues. The class-based case presentations provided an opportunity for peer learning across disciplines and specialties and the comments reflected this: 'I have enjoyed mixing with other professionals and learning from them' and 'Recent problems or findings in the different areas made the subjects not only interesting but clinically relevant.'

Conclusion: The module allows students to integrate, synthesize and demonstrate their assessments and diagnostic skills and pathophysiological knowledge so that they are competent in recognising and managing complex comorbidities.

Significance: Multi-professional and peer based learning can be successfully and effectively delivered.



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Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

### **Analysis of potential categories and related factors of anxiety and depression in high-risk pregnant women**

**Limei Lei**<sup>1</sup>

<sup>1</sup>Mianyang Central Hospital, Mianyang, China

Background: High-risk pregnancies not only pose a threat to the physical health of pregnant women, but can also have a serious impact on their mental health. Anxiety and depression are the most common psychological problems among at-risk pregnant women.

Objectives: This study aims to analyze the latent categories of anxiety and depression in high-risk pregnant women and their related factors.

Methods: A total of 2613 valid cases were included in the study. The GAD-7 and PHQ-9 scales were used for the assessment of anxiety and depression, respectively, and the 8th edition of "Obstetrics and Gynecology" standards for high-risk pregnancy were applied for risk assessment.

Results: Latent class analysis revealed four distinct categories: the Asymptomatic Group (68.5%, n=1791), High Anxiety and Depression Group (4.4%, n=114), Sleep Disorder Group (13.0%, n=339), and Moderate Depression and Anxiety Group (14.1%, n=369). The AIC, BIC, and aBIC values for the four-category model were 26889.349, 27305.899, and 27093.006, respectively, indicating the best model fit. The Entropy value was 0.864, demonstrating clear category differentiation. Multivariate logistic regression analysis showed that the  $\beta$  values for high-risk pregnancy status, fetal factors, and pregnancy factors were 0.374, 0.805, and 0.916 respectively, all with significant impacts ( $P < 0.001$ ) on the Moderate Depression and Anxiety Group.

Conclusion: These categories were significantly associated with the high-risk status of pregnant women, fetal factors, and pregnancy factors. The findings of this study are crucial for the identification and intervention of mental health issues in high-risk pregnant women.

Significance: Attention to at-risk pregnant women, detailed analysis of fetal and pregnancy factors, and the use of advanced statistical methods have contributed to understanding and improving the mental health status of women with at-risk pregnancies.



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Theme: Investing in the APN Health Workforce

### **Developing Core Competencies for Prehospital Specialist Nursing Practice in China: A Targeted Scoping Review**

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Background: In China, pre-hospital care, distinct from Western methods, uses emergency nurses instead of paramedics and includes aviation rescue. This highlights the need for developing the content of competencies of Chinese advanced practice nurses in pre-hospital settings.

Objectives: Identify and refine key competencies for China's pre-hospital nurses.

Methods: This scoping review involved a systematic search in PubMed, CINAHL, and Scopus using MeSH terms like "emergency medical services", "nurses", and "professional competence", supplemented by keywords such as "prehospital nurs\*", "ambulance nurs\*", "flight nurs\*", and "professional identit\*", "competence\*" and so on. It focused on prehospital nursing competencies, following Arksey and O'Malley's framework, screening titles, abstracts, and full texts. Data extraction emphasized competencies in aviation rescue and crisis management. The final step was synthesizing the findings to develop it suitable for the Chinese prehospital context.

Results: Core competencies for prehospital nursing, identified for nurses prepared to work in ambulance, flight, or disaster settings, include physical fitness especially to turbulence and motion, emergency medical procedures and planning, patient assessment, critical decision-making, effective communication, and teamwork. Additionally, adaptability to high-pressure situations and a commitment to continual learning and adaptation are emphasized as essential skills and knowledge areas.

Conclusion: Pre-hospital specialist nurses require a broad range of abilities, encompassing not only advanced first aid skills and crisis management but also competencies across various disciplines, such as midwifery and pediatric care. Given the growing emphasis on pre-hospital pain management in China, there's a call to expand the prescription authority of pre-hospital nurses, akin to the role of pre-hospital anesthesia nurses, to offer more comprehensive patient care.

Significance: This is the inaugural proposal of pre-hospital specialist nurses, considering aviation and ground transport work environments. This study will underpin the expert consensus development for pre-hospital specialist nurses' core competencies.



### Investigation on the expectations of 1996 nursing managers for Chinese Nurse Practitioner education and practice in Hunan Province

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Background: The NP development is still in the exploratory stage and has not yet formed a unified paradigm in China.

Objective: To investigate the expectation of Chinese nursing managers to Nurse Practitioner (NP) education and practice in Hunan Province and to guide the NP development in China.

Methods In March 2021, a self-designed questionnaire was used to investigate 1996 nursing managers in Hunan Province.

Results: The survey shows that the top three core competencies of NPs were independent practice competencies (95.34%), competencies (78.21%), and practice inquiry competencies (68.84%). On the other hand, the selection rate of policy competencies (26.35%) and ethics competencies (25.40%) was less than 30.00%. The admittance criteria for NP were a bachelor's degree (74.90%), supervise nurse (67.18%), 5-10 years of general practice nursing experience (78.96%), and 5-10 years of specialized nursing experience (76.40%). From the data in this survey, 1321 (66.18%) nursing managers expected that the graduate program and special education program could be the sources of NP talent cultivation in China. 44.94% of respondents expected that the qualification should be certified by the national health administrative department. Moreover, 87.88% of them expected that certification renewal could be elementary. The NP scope of practice identified eight parts, and their selection rate exceeded 53.00%. For the clinical practice development of Chinese NP, the data indicated that the most suitable workplace was a tertiary hospital (57.87%), the first practice areas were chronic disease management (81.31%) and elderly care (53.31%), and the most suitable prescription form was protocol prescription (42.38%).

Conclusion: The nursing managers' expectations about NP education, certification and practice can be a reference to guide the program's progress. Moreover, by building a local, standard and dynamic management system for NP development, it can promote the role of NP and give play to its economic and social value.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### Barriers and Facilitators to the Safe Medication Behavior of Vasoactive Drugs Among ICU Nurses Based on the Theoretical Domain Framework

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Objective: To analyse the barriers and facilitators to the safemedication of the vasoactive drugs for ICU nurses based on the theoretical domain framework.

Methods: The Delphi method was used to develop the questionnaire. During August to September 2023, a questionnaire survey was conducted in 8 tertiary general hospitals in Chengdu(China) .

Results: A total of 1,041 questionnaires were collected, of which 1,007 were available for valid response with a 96.73% recovery rate conclusions. Over the past 6 months, there were 298 (29.6%) nurses who had not participated in training and education related to intravenous infusion of vasoactive drugs; and only 492 (48.9%) nurses would be able to follow the guideline of intravenous infusion of vasoactive drugs. The domains of negative emotions, behavioural regulation and self-efficacy had a higher score rate to 61.73%, 40.60% and 38.46%, respectively, while the domains of professional roles, beliefs about outcomes and motivational goals had a lower score rate to 33.93%, 32.06% and 33.26%, respectively. Multiple linear regression analyses showed that the education and training ( $\beta=0.395$ ,  $P<0.001$ ), memory/attention and decision-making process ( $\beta=0.103$ ,  $P<0.001$ ), environmental resources ( $\beta=0.090$ ,  $P=0.001$ ), and negative emotions ( $\beta=-0.040$ ,  $P<0.001$ ) were the key barriers to implementing vasoactive intravenous infusion nursing guidelines for ICU nurses. and the knowledge ( $\beta=-0.056$ ,  $P<0.001$ ), self-efficacy ( $\beta=-0.137$ ,  $P<0.001$ ), and social influence ( $\beta=-0.118$ ,  $P<0.001$ ) were the facilitators to implementing the vasoactive drug intravenous infusion nursing guideline for ICU nurses.

Conclusions: The overall compliance of vasoactive drug safety nursing behaviour of ICU nurses in tertiary hospitals in Chengdu is generally dissatisfied. Moreover, nurses generally have problems such as heavy emotional burden, insufficient ability and belief, and low supervision and feedback at the level of individual or ward. Nursing managers should identify the barriers and facilitators of nurses' nursing behaviours for the safe administration of vasoactive drugs earlier.



### **Diabetes Self-Management Education and Support Led by Specialized Nurses in China: A Comprehensive Review**

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**Background:** The imperative for Diabetes Self-Management Education and Support (DSMES) as a universal intervention is crucial, holding profound significance for individuals managing diabetes.

**Objective:** This article conducts a comprehensive review of DSMES research led by specialized diabetes nurses. It aims to succinctly describe the current landscape, analyze key research outcomes and limitations, and serve as a reference for future DSMES research led by specialized nurses globally.

**Methods:** Following the JBI scoping review methodology, a systematic search covered databases such as CNKI, Wanfang, Embase, PubMed, and Web of Science from April 2013 to April 2023. Inclusion criteria involved Chinese or English language publications. Two JBI-trained researchers meticulously adhered to selection criteria, employing descriptive analysis for the included literature.

**Results:** A comprehensive review of 62 articles was conducted, covering 18 provinces, mainly in Jiangsu, Beijing, Shanghai, and Henan, involving 16,618 subjects aged 13 to 95. The research spanned various diabetes types and complications, utilizing predominantly quasi-experimental designs. Interventions, led by diabetes specialized nurses, included diverse strategies like peer education, individual case management, collaborative outpatient care, and group education. Themes addressed self-management skills, continuity of care, insulin pump usage, diabetic foot risk screening, mobile health applications, gestational diabetes management, and dietary control. Interventions occurred in hospitals, outpatient clinics, communities, and homes, with evaluation criteria focusing on blood glucose control and social psychology indicators. Economic aspects were explored in only one study.

**Conclusions:** DSMES research led by specialized nurses in China primarily explores the effectiveness of diverse education methods across diabetes patient groups. Quasi-experimental designs, varying interventions, and limited consideration of midterm effects characterize the research. Evaluation primarily centers on blood glucose control, with sparse attention to economic indicators. Evaluation of cost-effectiveness remains an underexplored aspect.

### **Advanced practice nurse-led transitional care from Intensive care unit (ICU) to Ward improves safety of left ventricular assist device (LVAD) supported patients**

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**Advanced practice nurse-led transitional care from Intensive care unit (ICU) to Ward improves safety of left ventricular assist device (LVAD) supported patients.**

**Background:** The ICU readmission rate of patients after LVAD implantation is as high as 18.4%, and the ICU readmission rate is closely related with one-year mortality. Implementing ICU transitional care was found to contribute to improved patient care and decreased ICU readmission rate. However, few studies have examined the impact of APN-led transitional care for LVAD-supported patients.

**Objectives:** The aim of the study was to establish a transitional care program, led by advanced practice nurses for patients supported by LVAD in order to ensure continuity of care, improve patient care quality, reduce adverse effects, and reduce ICU readmission.

**Methods:** The authors conducted focused group discussion with multi-disciplinary team members. Based on the transitional care model (TCM), nursing strategies related to screening, staffing, engaging patients and caregivers, assessing risks, promoting self-management, promoting continuity and fostering coordination were established. In addition, the role and responsibilities of the advanced practice nurse in the program were established. Then, the established protocol of the transitional care program was evaluated and revised through the Delphi survey.

**Results:** No 48-hour ICU readmission or adverse events incidence of the LVAD patients were reported as a result of the protocol's application. The LVAD patients, their caregivers, staff of the ICU and ward all presented with high satisfaction.

Conclusion: Our findings suggested that advanced practice nurse-led high intensity multi-component and multidisciplinary interventions has improved the quality of care.

Significance: APN facilitating relationships and fostering coordination, play an important role in the continuity of care for LVAD patients. Further research is required to investigate the effects of APN-led TCM on patient mortality over a period of one to five years in order to better understand the program's long-term effects.

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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Effects of the heart failure nurse specialist-coordinated outpatient care model on symptom distress, care needs, and quality of life for the elderly discharged from heart failure hospitalization.**

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Background: The elderly with heart failure (HF) have increased symptom distress and poor quality of life (QOL), and are more likely to take palliative care. It is unknown whether HF nurse specialist (HFNS)-coordinated care helps.

Objective: To investigate whether HFNS-coordinated care over 6 months after discharge improved symptom, care needs, and QOL for the elderly following HF hospitalization.

Methods: This study was a single-centre, interventional, follow-up study. Patients (>65 years old) discharged from HF hospitalization were enrolled. In the intervention group, individualized coaching education, HF medication (GDMT) optimization, and pre-scheduled outpatient visits with cardiologist/HFNS were conducted during the 6 months. The control group received traditional care. Outcomes, including symptom, care needs, and QOL [physical and mental component scores (PCS and MCS, respectively)], were measured from baseline to 6 months.

Results: We investigated 104 patients (intervention: 54; control: 50; average age=74.4 years). There were no significant differences in the demography, symptom, care needs, and QOL at baseline between groups. During the 6 months, the intervention group, compared to the control group, had higher GDMT using rate, higher PCS ( $p<.001$ ), and MCS ( $p=.028$ ). Univariate analysis showed that factors associated with better QOL included age (PCS:  $B=-0.32$ ,  $p<.001$ ), HFNS intervention (PCS:  $B=6.10$ ; MCS:  $B=6.11$ ,  $p<.001$ ), using GDMT (PCS:  $B=4.56$ ; MCS:  $B=5.31$ ,  $p<.05$ ), symptom (PCS:  $B=-0.43$ ; MCS:  $B=-0.40$ ,  $p<.001$ ), and care needs (PCS:  $B=-0.43$ ; MSC:  $B=-0.52$ ,  $p<.001$ ). Multivariable analysis demonstrated that factors independently associated with better QOL were HFNS intervention (PCS:  $B=2.87$ ,  $p=.008$ ; MCS:  $B=3.02$ ,  $p=.021$ ) and care needs (PCS:  $B=-0.29$ ,  $p=.008$ ; MCS:  $B=-0.32$ ,  $p<.001$ )

Conclusion: In the elderly following HF hospitalization, HFNS-coordinated care during the 6 months after discharge and care needs satisfaction are factors independently associated with better physical and mental QOL.

Significant Impact and Reach: The post-discharge HFNS-coordinated care is an effective strategy to improve QOL of the elderly.

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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**The impact of the emergence of wearable devices on nursing practices**

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With the exponential growth of technology, wearable devices have insinuated themselves into nursing practice, playing a more significant role in enhancing patient care. These devices not only streamline processes for medical professionals but also enrich the patient experience.

Firstly, in hospital settings, wearable devices are indispensable for patient surveillance. They enable real-time tracking of patients' vital signs and sleep patterns, allowing nurses to make more informed decisions regarding patient condition. Furthermore, these devices simplify emergency triage and alleviate associated stress. Google Glass, for instance, is employed in surgical procedures to augment nurse efficiency.

Secondly, wearable devices extend their utility beyond hospital walls. Smart wristbands, watches, and other such devices empower patients to monitor their health, detect anomalies, and respond appropriately. They also feature medication reminders, GPS tracking, and security alerts. These devices not only bolster patients' self-management capabilities but also mitigate the workload of medical staff. Wearable devices can also monitor a patient's gait and activity, preventing falls in high-risk patients. By surveying patients' sensory, emotional, and environmental factors, healthcare professionals can gain a more comprehensive understanding of their conditions and care requirements. Data analysis enables the development of personalized care plans, thereby improving care outcomes.

In conclusion, the integration of wearable devices in nursing practice has resulted in considerable benefits for both medical staff and patients. As technology progresses, the incorporation of wearable devices in healthcare provision will likely become more extensive and profound.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Integrating Technology and Innovation in Risk Mitigation Strategies for Safe Patient Outcomes**

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**Background:** Delayed or unsafe care continues to be a leading cause of patient harm especially for cardiovascular disease. The healthcare industry is being transformed by technological advancements and presents an opportunity for pioneering advancements in acute care cardiac nursing practice to mitigate risk. Early prediction telemetry algorithms enable notifications for assessment and interventions. Adjunct secondary notifications are novel innovations to telemetry system management.

**Objectives:** This study comprehensively analyzes the impact of optimizing early nursing intervention propelled by secondary telemetry notification technology as a strategy in risk mitigation- reducing harm and promoting positive patient outcomes for cardiac patients on Telemetry monitoring.

**Methods or Approach:** The study highlights the transformative potential of technology integration in mitigating risk and reducing harm. Integration of Secondary Telemetry Notifications Alerts in the existing nursing workflow for Telemetry monitoring allows for early nursing and medical interventions. Integrated Care algorithms developed establish evidence-based decision-making and care assignment standards.

**Key learnings or results:** Telemetry Secondary Event notifications have resulted in significant reduction in patient harm and reduced length of stay. Care team dynamics established integration of core telemetry practice standards amongst collaborative team partners. A significant by-product of the new integrated system is a reduction of nuisance alarms and alarm fatigue.

**Conclusion:** Incorporating innovative secondary notification technology in acute cardiac nursing telemetry practice presents numerous advantages that bring significant enhancements to patient safety and organizational risk mitigation.

**Significance (Impact and Reach):** It enables streamlined care coordination, collaboration among care partners and data-driven decision-making towards positive patient outcomes, harm reduction and reduced length of stay. Evidence based care standards guiding innovative technology propels towards safer cardiac care in all care settings.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Establishment and application of technical specifications for long distance safe transport of extracorporeal membrane oxygenation in high altitude environment**

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**Background:** The unique geographical environment of high-altitude areas leads to a high incidence, rapid progression, and poor prognosis of cardiovascular and pulmonary diseases. The application of extracorporeal membrane oxygenation (ECMO) plays a crucial role in the treatment of such patients in these regions, making long-distance safe transport particularly important. The adverse conditions of low oxygen, low pressure, and low temperature specific to high-altitude environments pose higher requirements for the stability of ECMO equipment and the technical skills of the medical team.

**Objective:** To develop operational technical standards for safe transportation of ECMO in high-altitude environments, ensuring the safety of patients and stable operation of ECMO equipment during transport.

Methods: A comprehensive study was conducted on ECMO transport nursing assessment, operational techniques (equipment connection, circuit priming, ECMO operation monitoring, patient monitoring, ECMO circuit maintenance), complications warning and management, and quality control techniques, to establish ECMO long-distance transport standards suitable for high-altitude environments. Additionally, action research was employed to conduct case studies in a continuous cycle.

Results: A set of operational technical standards for long-distance ECMO transport in high-altitude regions was developed, improving the safety of ECMO transport, optimizing the transport process, reducing patient waiting and transport time, and lowering mortality rates.

Discussion: The establishment of high-altitude ECMO long-distance transport standards can enhance the safety of transportation, improve the quality of advanced extracorporeal life support medical services in high-altitude regions, promote medical equality, and reduce regional disparities in healthcare services.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

**The Impact of COVID on the Classroom: A City Walk to Identify Population Health**

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Background: COVID pandemic was a challenging time for both students and educators. One way to meet with students was to go outside and teach within the real world by using your senses to witness the health status of your own population.

Objectives: The objective of the city walk is to introduce ANP students to see their own city from a different perspective. Approach: Students completed a series of questions regarding the health status of their city, cultural diversity, social facilities, and political decisions that impact the health of their citizens. The city walk included a visit to a food pantry, homeless shelter, men's shelter, well-baby clinic, Vietnamese restaurant, African wig shop, and a Chinese supermarket. Key learning: Students had never realized that the city was so diverse and saw the challenges that many citizens faced such as malnutrition, loneliness, poverty, language barriers and other barriers to health.

Conclusion: Getting out of the classroom was a valuable way to deliver real life challenges that are not often seen in the clinical setting.

Significance: Gaining awareness to the challenges that many citizens face to good health is an essential skill for ANPs to delivery holistic care.



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Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

**An ANP led telephone clinic is a safe and effective service for assessment of patients with breast pain**

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Background: Breast pain as an isolated symptom, with a normal clinical examination, is rarely associated with sinister pathology. Our service manages these patients out with the one stop clinic (OSC), as most do not require breast imaging and or biopsy. COVID19 forced reduction in face-to-face outpatient appointments. We developed an ANP-led telephone clinic (TC) for patients referred with breast pain.

Objectives: To assess the safety, efficacy and outcomes of an ANP-led breast pain telephone clinic (TC). To compare TC outcomes to an in-person ANP breast pain clinic; established prior to COVID-19

Methods: Retrospective single centre review of breast pain TC January - October 2021 (208 patients). Electronic patient records were reviewed. Attendance, referral information, previous breast history, re-referrals and clinic outcomes were recorded. Data was compared with the clinic performed in-person, prior to COVID19 (210 patients).

Results: 208 patients were assessed. Some were previous breast cancer patients (28/208, 13.5%). 18/208 (8.7%) required assessment in OSC after TC, because of other symptoms. None were diagnosed with breast cancer. A higher proportion of patients needed OSC assessment after TC than an in person pain clinic assessment (2/210, 1%), but remains low. 11/208 (5.3%) patients were re-referred following discharge from TC, which is comparable to in person pain clinic (11/210, 5%).

Conclusion: TC was a valid way to manage patients referred with breast pain as an isolated symptom. There is a low incidence of cancer in this cohort. Most patients are reassured and discharged following normal clinical examination in primary care and TC assessment allowing a reduction in face-to-face appointments.

Significance: The ANP-led TC contributed positively to service provision during a public health crisis where reducing patient contact was key to minimising spread of the COVID19. This was demonstrated to be a safe and effective way of managing this cohort of patients.



## **Innovative Educational Strategies to Foster Preparation of Advanced Practice Nurses to Address Global Health Inequities**

**Dr Amy Manderscheid<sup>1</sup>, Dr Katherine Moran<sup>1</sup>, Dr Karen Kesten<sup>2</sup>, Dr Catherine Corrigan<sup>3</sup>**

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**Background:** National guidelines illuminate the need for nurse practitioners (NP) to demonstrate competence in addressing health inequities and population health (National Academies of Sciences, Engineering, and Medicine, 2021). The American Association of Colleges of Nursing 2021 Essentials: Core Competencies for Professional Nursing Education and the National Organization of Nurse Practitioner Faculties NP Role Core Competencies integrate concepts of health equity to be woven through NP education.

**Objectives:** Describe strategies to foster clinical scholarship from the three Actualized DNP Model components: Knowledge and Competencies, Innovative Roles, and Outcomes and Impact of NPs on the health of individuals, populations, community, and global society.

**Methods:** Innovative teaching strategies include:

- Knowledge and Competencies will feature experiential learning, growth, and scholarship opportunities for NP students to effectively address complex global population health needs.
- Innovative Roles will inspire NPs to address health inequities to improve access to healthcare and reach global population health goals.
- Outcomes and Impact from clinical scholarship within NP roles will apply quality and safety competencies and achieve outcome measures in practice.

**Results:** Examples of teaching strategies will be discussed, including:

- Conducting focus groups/individual interviews with community members to explore perceptions of healthy lifestyle barriers/limitations
- Conducting scholarly projects with interventions to address access to care, health disparities, and determinants of global health
- Designing interventions for local health centers in underserved communities
- Designing/implementing innovative roles to meet patient and global community needs
- Leveraging digital health tools and data analysis to address quality metric goals

**Conclusion:** Demonstrating the complexities of achieving population health outcomes requires advanced nursing competency attainment. Innovative educational strategies by leveraging the Actualized DNP Framework can provide NPs the opportunity to demonstrate population health competencies.

**Significance:** The significance of this presentation substantiates global impact of NPs on patients, communities, populations and global society.



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### **Innovative Roles as Perceived by DNP-prepared Nurses**

**Dr Amy Manderscheid<sup>1</sup>, Dr Dianne Conrad<sup>1</sup>, Dr Katherine Moran<sup>1</sup>, Dr Karen Kesten<sup>2</sup>, Dr Catherine Corrigan<sup>3</sup>, Dr Sarah Beebe<sup>2</sup>, Dr Rosanne Burson<sup>4</sup>, Dr Liz Pohl<sup>1</sup>**

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**Background:** The introduction of the Doctor of Nursing Practice (DNP) degree and competencies related to practice scholarship in the U.S. have advanced the nursing profession towards achieving the Institute of Medicine and United Nations Sustainable Development goals. The engagement in practice scholarship, as perceived by DNP-prepared nurses, is an important aspect of role enactment.

**Objectives:** The study aimed to examine the frequency of engagement in practice scholarship, examine the relationship between the knowledge acquired in DNP programs, and assess the relationship between engagement in practice scholarship, work role, and years since obtaining a DNP degree, as reported by practicing nurses.

**Methods:** A cross-sectional design was used to recruit 306 practicing DNP graduates via a U.S. nursing organization and employed an electronic survey that garnered 269 completed surveys.

Results: Among the reported practice scholarship activities, the evaluation of current clinical evidence was the most frequent, while the dissemination of policy papers was the least frequent. The majority of respondents (51.7%) reported that they designed or implemented new policies at a local, regional, or national level, with 36.1% evaluating clinical practice models to transform healthcare delivery, and 38.3% analysing system-wide data to evaluate practice patterns. There was a significant difference observed in practice scholarship engagement between those in direct care work roles and other roles, as well as between individuals with over 10 years of experience and those with less.

Conclusion: The study suggests that when all components of The Actualized DNP Model are acknowledged and valued in practice, DNP-prepared nurses can effectively apply knowledge and competencies in innovative advanced practice nursing roles, influencing outcomes at multiple levels.

Significance: The findings provide the foundation for further research to describe and measure the outcomes and impact of nursing practice scholarship on patients, systems, populations, quality and safety, policy, and the nursing profession.



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Theme: Investing in the APN Health Workforce

### **Nurses' and Advanced Practice Nurses' experiences of prerequisites for caring in home care contexts in Norway. A phenomenological-hermeneutic study.**

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Background: Care is fundamental in nursing. Norway, along with the rest of the world, experiences a growing elderly population living with multimorbidity. There is an increased focus on more patients being treated at home. This has created a complex situation in the context of community health care and has led to many nurses complaining that their workloads are heavy and that they are lacking qualified competence, space and time for caring for their patients. This shows the need for employment of higher qualified nurses such as Advanced practice nurses (APNs).

In Norway, the concept of Advanced practice nursing is in its early stages. However, the profession is prioritized and there is a need to know more about how to develop its role.

This study describes how nurses and APNs experience their daily working environment within community health care.

Aim: The aim of this study was to explore and describe nurses and APNs' experiences of their caring relationships and their possibilities to care for patients within the home care nursing context in the community.

Methods: The study had a qualitative and descriptive phenomenological-hermeneutic design. A total of ten nurses and APNs working in community care were interviewed by individual in-depth interviews. The interviews were recorded digitally, transcribed and analyzed using a phenomenological-hermeneutic method.

Results: The nurses and APNs were invited to narrate their lived experiences regarding the concept of caring.

Preliminary results will be presented at the conference.

Conclusion: Having enough time for caring, professional competence and organization of the community health care services are prerequisites for the quality of caring.

Significance: This study might be helpful to develop a sustainable home care workforce in the future as well as to develop the role of Advanced practice nursing in home care contexts.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **NHS Lanarkshire Primary Care Urgent Care Team: Delivering Urgent Care to the People of Lanarkshire in an Innovative Way**

**Laura McCabe**, Lorraine Smith, Lindsay Simpson

Background: Following the COVID pandemic and as part of NHS Lanarkshire's (NHSL) response to the General Medical Services (GMS) Contract, the NHSL Primary Care Advanced Nurse Practitioner (ANP) Team developed two Urgent Care Teams (UCT) to deliver care to approximately 76107 in two localities. The UCT has evolved since creation and now provides Telephone Consultations (TC), Face to Face (F2F) Assessments and Home Visits (HV). The team now

provides care for individuals in Blantyre Life Intermediate Care Facility (BLICF), a Health and Social Care Partnership initiative supporting people to allow them to return to their own homes.

Objectives

- To ensure the people of NHS Lanarkshire receive care in the right place, at the right time, from the right healthcare professional.
- Meet the objectives of the GMS Contract.

Methods or Approach

- UCT offers TC and HV slots to GP Practices
- F2F Appointments are arranged where needed
- Decision made to either discharge, refer to Primary or Secondary Care including Hospital at Home and Acute Admissions, or organise investigations

Key learnings or results: Since November 2021 the UCTs have delivered a total of 23470 appointments. This has released GP time to spend with patients who have more complex needs and allowing them to be the expert medical generalist.

Conclusion: The UCT continues to provide high quality, safe, person-centred care. Discussions are ongoing regarding the scale and spread of this service to the wider NHS Lanarkshire population to improve the patient journey.

Significance (Impact and Reach): Feedback received from patients and GP Practices alike has been extremely positive: 'you really are giving an amazing service; we appreciate all your hard work. Your assessments are thorough and documentation detailed' - GP

'this is an amazing service, I can't believe how quickly I have been seen and sorted' - patient



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Advanced Practice an innovative prominence in a national healthcare setting**

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Background: The Advanced Nurse Practitioner (ANP) is a dual, autonomous, and independent role, utilising highly specialised skills while making complex decisions based on assessments and treatment for a national population from cradle to the grave with direct access while working within national and regional health and social care services. This unique, innovative cross-boundary advancing role provides a two-way knowledge exchange with external health and social care partners to improve access and service delivery.

Objectives: To strengthen our evidence-based contemporary scope of practice, the ANPs focussed on the three "forgotten" advanced practice pillars by harnessing leadership, delivering education, and implementing quality improvement methodology for various research projects

Methods: Implementation of effective transformational leadership by underpinning a systematic theoretical approach to create quality improvement measurable projects and nurture multi-disciplinary relationships while delivering key point service indicators to improve the patient flow and promote the advanced practice role.

Results: Improving perceptions of the advanced practice role, 78% of colleagues recognised their expertise, knowledge, and ability to direct the patient to the right care in the right place. The ANPs reached out to over 40 healthcare professionals within a 500-mile radius delivering education sessions to improve assessment and decision-making skills resulting in 86% wishing additional workshops. The ANPs reviewed 200 minor trauma and musculoskeletal calls and regraded a third of the calls to improve the patient journey.

Conclusion: Advanced Nurse Practitioners are integral in transforming and leading quality person-centred care and pushing their professional role boundaries to create interdisciplinary relationships with regional, national, and international advanced practice and multi-disciplinary communities.

Significance: National Advanced Nurse Practitioners are positive influencers changing the shape and nature of the national advanced practice role by effectively supporting the demand management and transformation across the whole multi-professional health and social care system.





### **Multi-site Continuing Professional Development Event For The Advanced Practice Workforce Within NHS Lanarkshire.**

Marissa Parker<sup>1</sup>, **Julie McQuade**<sup>1</sup>, Laura McCabe<sup>1</sup>

<sup>1</sup>NHS Lanarkshire, United Kingdom

Background: Education and continual professional development (CPD) for APN's is essential to ensure the workforce has the most up-to-date, evidenced based knowledge and skills to achieve best person-centred care. The senior nurse for AP within University Hospital Monkland's (UHM) in collaboration with the lead AP for education devised a multi-site event to deliver high quality CPD to the APN's of NHS Lanarkshire. APN colleagues were invited from NHSL three acute hospital sites as well as Scottish Ambulance Service (SAS), community and mental health. A renal based theme was chosen for the event as UHM has a renal department within its hospital.

#### Objectives:

Specific- A high quality, well executed CPD event for APN staff.

Measurable- Evaluation surveys.

Achievable- Goal was achievable and realistic.

Relevant- Requirement of role within advanced practice.

Time- Bound- Date set in advance to ensure time to organise guest speakers, room facilities etc.

Approach: The senior Nurse for AP and the AP educator organised guest speakers based on a renal theme, see agenda below for event.

0900 Welcome, Senior Nurse Advanced Practice.

0900-1000 'Trust', Chief Nurse, lead for advanced practice in NHSL.

1000-1050 Renal Emergencies, Renal ST7.

1100-1130 Prescribing and renal impairment, Renal Pharmacist.

1130-1230 Renal Emergency cases, Renal ST7.

1330-1400 CBD's, ANPs Renal.

1400-1500 Hepato-renal syndrome, Consultant Gastroenterologist.

1500-1600 CBD's

Key learnings or results: Anonymous evaluation forms were completed, below (Attach Charts) highlights the most valuable parts of the event and what areas could be improved upon.

Conclusion: Time protected, high quality CPD is essential for our growing APN workforce. The CPD event was well received and it will be conducted yearly with others being encouraged to duplicate the same.

Significance: The reach was far and wide throughout NHS Lanarkshire and resulted in overwhelmingly positive feedback with improvements for future events.



1046

Theme: The UK perspective - Multi-professional Advanced Practice

### **Developing the scope of practice of Mental Health Advanced Clinical Practice in England**

**Donna Megeary**<sup>1</sup>, **Jane Anderson**<sup>1</sup>, Laura Washington<sup>1</sup>, Anthony Dhurmea<sup>1</sup>, Rachel May<sup>1</sup>, Rebecca Britton<sup>1</sup>, Thomas Norman<sup>1</sup>, Prof Melanie Rogers<sup>1</sup>

<sup>1</sup>University of Huddersfield, Huddersfield, United Kingdom

Background: Advanced Clinical Practice is embedded in Primary and Secondary care in England focusing predominantly on physical health presentations. With the implementation of specific Health Education England competencies for specialties, students can train as Advanced Clinical Practitioners in routes specific to their area of practice. Mental Health is one such route and is an evolving area of Advanced Clinical Practice in England.

Many new opportunities are developing for Mental Health Advanced Clinical Practitioners to work in areas outside of traditional mental health settings. Examples include Mental Health Advanced Clinical Practitioners working in Head and Neck Cancer services and Trauma services.

Objective: This poster identifies the current scope of mental health Advanced Clinical Practice in England including case study vignettes.

Approach: The current scope of Advanced Clinical Practice (Mental Health) will be presented together with vignettes highlighting the scope of practice possible.

Key learning or results: Advanced Clinical Practitioners (Mental Health) working in primary and secondary care are well placed to counter the increased demand on service provision, pressure to maintain cost efficient services.

Organisations should creatively consider the benefit of Mental Health Advanced Clinical Practitioners complementing the workforce in all settings including primary and secondary care settings.

Conclusion: Advanced Clinical Practice in Mental Health is England is evolving in primary and secondary care. Challenges remain around the role identity and implementation of organisational



NPAPN24001(1)

### **Competency Attainment as Perceived by DNP-prepared Nurses**

**Dr Katherine Moran**<sup>1</sup>, Dr Dianne Conrad<sup>1</sup>, Dr Amy Manderscheid<sup>1</sup>, Dr Karen Kesten<sup>2</sup>, Dr Catherine Corrigan<sup>3</sup>, Dr Sarah Beebe<sup>2</sup>, Dr Rosanne Burson<sup>4</sup>, Dr Liz Pohl<sup>1</sup>

<sup>1</sup>Grand Valley State University, USA, <sup>2</sup>The George Washington University, USA, <sup>3</sup>Dublin City University, <sup>4</sup>University of Detroit Mercy, USA

Background: The Doctor of Nursing Practice (DNP) degree was introduced in the U.S. over two decades ago, yet limited literature examines the competencies and impact of nurses holding a practice doctorate.

Objectives: To examine reasons for pursuing a DNP degree, assess the knowledge and competencies acquired through DNP programs, and to inform stakeholders about the skills acquired by nurses with practice doctorates.

Methods or Approach: Employing a cross-sectional design, a self-report survey was administered to a convenience sample of DNP-prepared nurses in practice, recruited through a U.S. membership organization. The electronic survey was designed using constructs developed from the literature, national organization position statements, and standards of doctoral nursing education.

Key learnings or results: A total of 306 participants responded to the survey, 270 were deemed valid after data review. The majority strongly agreed that they gained competency in translating and synthesizing research evidence into practice, designing and implementing quality improvement initiatives, and identifying, measuring, and evaluating outcomes. Notably, high agreement percentages were observed (86.9%) for developing and implementing health care policy, utilizing informatics to affect health and health care delivery impact (81.3%), and contributing to the development and implementation of healthcare policies at the local, regional or national levels (75.8%). Importantly, a predominant number of respondents did not seek a DNP degree because it was required for a job, to gain additional supervised practice, or to receive additional training with a specialty population.

Conclusion: Primary drivers for seeking a DNP degree were the quest for knowledge, acquisition of skills and competencies, bolstering confidence, and expanding job opportunities.

Significance: DNP-prepared nurses possess unique, advanced knowledge, competencies, and skills that influence healthcare outcomes across multiple settings. The study underscores that highly skilled DNP-prepared nurses are equipped to lead quality improvement initiatives, engage in practice scholarship, and improve clinical outcomes.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **Inspiring Future Advanced Practice Nurses for Primary Care Roles: Thinking Ahead**

**Gillian Morris**<sup>1</sup>, Mark Gourlay<sup>1</sup>, Heather Geddes<sup>1</sup>, Dr Kevin Stirling<sup>1</sup>

<sup>1</sup>University Of Dundee, Dundee, United Kingdom

Background: Primary care is facing extreme pressures from increased demand and staff shortages. Advanced Practice Nurses (APNs) offer potential means of expanding service delivery (Kerr and Macaskill, 2020). Attracting registered nurses into advanced practice roles is crucial. Understanding the motivation of registered nurses pursuing APN roles is critical to understanding the influences in decision-making processes (Kerr and Macaskill, 2020). Whilst studies explore these influences in registered nurses, there is a dearth of literature regarding undergraduates. It seems prudent to consider where future APNs will come from. Difficulties in role transition into advanced practice exist (Mannix, 2020). Therefore, earlier preparation and understanding of the role may be significant.

Within a university, a clinical simulation exercise has been developed to allow final year nursing students to gain insight into primary care roles, including that of the APN.

Objectives: To determine whether participation in the simulation would make consideration of a future APN role more likely.

Methods: An evaluation approach.

Students will complete an anonymous questionnaire capturing quantitative and qualitative data after participation in the simulation.

Results: It is anticipated students will indicate they will be more likely to consider a future role in advanced practice within primary care following the simulation. This will be due to raising awareness of the scope of the role.

Conclusion: Students will have an increased understanding of APNs in Primary Care. This may inform future career decisions.

Significance: Advanced practice is an effective and efficient means of increasing access to primary care, therefore undergraduate nursing students should be considering this as an attractive future career option.

Kerr, L, Macaskill, A. (2020) The journey from nurse to advanced nurse practitioner: applying concepts of role transitioning. *British Journal of Nursing*, 29(10), pp. 56-65.

Mannix, K. (2020) Nurses' experiences of transitioning into advanced practice roles. *Nursing Times*, 116(3), pp. 35-38.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Supporting People Who Live with Stress and Distress in Dementia; Exploring the Role of the Community-Based Advanced Clinical Nurse Specialist.**

**Dr Steve Mullay**<sup>1</sup>, Laura Jackson<sup>1</sup>, Susan Holland<sup>1</sup>, Dr Karen Manson

<sup>1</sup>University of the West of Scotland, United Kingdom

Background: Aggression, agitation, psychosis, hallucinations, and abnormal motor symptoms have significant impact on people living with dementia. Older-adults' psychiatrists play a key part in addressing this. However, a shortage of consultant psychiatrists exists, while the number of people with dementia is increasing. Some remote and rural areas have no such professional. Thus, support for people affected by these experiences may be increasingly compromised. This study examined an innovative service in the Shetland Islands. Advanced practice dementia nurses provide specialist support to people living with dementia (and other professionals), with the remote input of a psychiatrist based on the Scottish mainland.

Objectives: This study aimed to gain insights into how effective this service approach is in supporting people living with dementia, and into how well it supports carers and other professionals.

Methods/methodology: Realist Evaluation methodology was used to collect, analyse and interpret data from interviews of health/social care managers, professionals, and family carers of people living with dementia.

Key learnings: Service success here is underpinned by two main factors;

- Use of nurses possessing unusually specialised advanced skills and expertise, practising autonomously in communities.
- The emergence of a new service delivery approach shaped around the activities of these nurses (as opposed to making the new nursing role fit an existing 'traditional' service structure).

Conclusion: This nursing role and associated service model resulted in notably improved outcomes for study participants. However, educational programmes may not yet fully reflect the specialised needs of this particular role. Also, it should be acknowledged that service delivery structures, and the roles of other involved professionals, should be reorientated to gain optimal benefit from the new approach.

Impact and reach: It is suggested that this approach could be utilised more widely as an important means of addressing contemporary workforce and demographic challenges in this field.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Extraction of evaluation criteria of a new XR nursing simulator: Simmar+ESTE-SIM**

Dr Noriyo Colley<sup>1</sup>, Dr Mari Igarashi<sup>2</sup>, Prof Shinji Ninomiya<sup>3</sup>, Dr Shunsuke Komizunai<sup>4</sup>, Prof Sozo Inoue<sup>5</sup>, Prof Satoshi Kanai<sup>1</sup>, Prof Atsushi Konno<sup>1</sup>, **Prof Misuzu Nakamura**<sup>6</sup>

<sup>1</sup>Hokkaido University, Japan, <sup>2</sup>International University of Health and Welfare, Japan, <sup>3</sup>Hiroshima International University, Japan, <sup>4</sup>Kagawa University, Japan, <sup>5</sup>Kyushu Institute of Technology, Japan, <sup>6</sup>Nagoya City University, Nagoya, Japan

Background: XR is an umbrella term for Virtual Reality (VR), Mixed Reality (MR), and Augmented Reality (AR). We created an environment that allows training for endotracheal suctioning during Tracheostomy Positive Pressure Ventilation (TPPV), by integrating a ventilator training app (Simmar) and an Endotracheal Suctioning Training Environment SIMulator (ESTE-SIM). Combining real equipment and virtual reality, sense of touch through the catheter and prompt feedback were received as if it is a real patient.

Objectives: The aim of this study is to obtain evaluation criteria for equipment of this new XR nursing simulation in Bachelor course curriculum to connect seamlessly with postgraduate course as one of educational contents.

Methods: Eight fourth-year students and 7 university faculty members at a university were participated. In the questionnaire, the scope of ventilator care that should be implemented in undergraduate education as well as their experience were asked by 4 Likert scales.

Results: The result of an unpaired t-test between the two groups, students and university faculties, showed a statistically significant difference of  $p = 0.002$  ( $t = 5.538$ ,  $df = 14$ ,  $\alpha = 0.05$ ). The results showed that university faculties were statistically significantly more cautious than students regarding expanding the scope of undergraduate education on ventilator care. Both groups answered 4th year is appropriate to study TPPV suctioning. As a result of principal component analysis, the first principal component was namely: "balance between learning content difficulty and motivation (achievability)", and the second principal component "balance between learning time, effort, and learning effect (implementability)".

Conclusion: TPPV suctioning training environment was developed utilizing XR technology. The survey results indicated that university faculties were more cautious than students in expanding the scope of undergraduate education on ventilator care. Achievability and implementability were extracted as two main criteria to decide to implement XR nursing simulator as educational contents.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**The effect of different times of day for exercise on blood glucose fluctuations**

**Wenchang Niu**<sup>1</sup>, Chang Liu<sup>2</sup>, Ke Liu<sup>2</sup>, Wenjing Fang<sup>3</sup>, Xiao qian Liu<sup>3</sup>, Zhumin Jia<sup>1</sup>

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Objective: This study aims to explore blood glucose variations before and after short-term intensive exercise in the morning or afternoon of a day and the trend of blood glucose fluctuations during exercise in patients with type 2 diabetes.

Methods: Blood glucose variations of 40 T2DM patients discharged from the hospital was analyzed; the patients were asked to perform 7 times of treadmill aerobic exercise, which lasted for 30 min with incremental intensity for each time, in 2 weeks under the supervision of FGM and the heart rate armband. The exercise intensity was adjusted by the clinicians and specialist nurses from the Department of Diabetes Mellitus according to the blood glucose levels and heart rate curves during exercise; SPSS 22.0 and GraphPad Prism 7 were adopted for statistical analysis.

Results: Compared to the morning exercise group, the fasting C-peptide value ( $2.15 \pm 0.97$  vs  $1.53 \pm 0.46$ ) in the afternoon exercise group was higher than that ( $p = 0.029$ ). The time of improvement in blood glucose in the afternoon exercise group was 5 min earlier (11 min vs 1 min) than that in the morning exercise group (15 min vs 1 min); significant differences were observed in both exercise duration ( $p < 0.001$ ) and time ( $p < 0.05$ ) on exercise days; in addition, a significant statistical difference ( $p = 0.021$ ) was revealed in the FGM-measured hourly the mean blood glucose on exercise days between the morning ( $8.18 \pm 1.88$ ) and afternoon exercise ( $6.75 \pm 1.40$ ) groups at 4:00 p.m. in 1 w and 2 w.

Conclusions: The improvement in blood glucose in the afternoon exercise group might be more apparent than that in the morning exercise group, accompanied by secretion of more fasting C-peptides and a longer duration of effective exercise. The time to do exercise is a factor that affects blood glucose variations during exercise.

**An exploration of Finnish nurse prescriber's prescriptions**

**Susanna Nylund**<sup>1</sup>, Dr Auvo Rauhala<sup>1</sup>, Dr Erika Boman<sup>2</sup>, Associate Prof Heli Vaartio-Rajalin<sup>3</sup>, Dr Lisbeth Fagerström<sup>1</sup>  
<sup>1</sup>Åbo Akademi University, Faculty of Education and Welfare Studies, Health Sciences, Vaasa, Finland, <sup>2</sup>Åland University of Applied Sciences, Mariehamn, Finland, <sup>3</sup>Turku University of Applied Sciences, Turku, Finland

Background: Nurse prescribing refers to nurse's authority to prescribe medication. The advanced competence is usually developed in response to local health needs, consequently the educational and regulatory requirements vary globally. Previous research results have found that nurse prescribers prescribe medication to an equivalent number of patients as physicians.

Nurse prescribing services was introduced in Finland 2012 and has developed and expanded since 2019. The nurse prescribers represented in 2023 approximately 1% of the registered nurses in Finland. The Finnish prescribing model is limited and requires a post-graduate education, while it is permitted on both post-graduate and Master's level. To be able to utilize nurse prescribing in Finland, it has found to be important that patients who benefits from nurse prescribing are directed to their receptions. The Finnish nurse prescribing is still understudied over a decade after its introduction. There are few published studies in the Finnish context and further research is needed.

Objectives: The aim was to explore factors associated with nurse prescribers' number of patients weekly prescribed medication. The study focus was the nurse prescribers educational background, work experience and instructions for direction of patients.

Methods: A cross-sectional national questionnaire study with 84 Finnish nurse prescribers conducted in 2021. The data was analysed with correlation analysis.

Results: Preliminary results show that length of work experience as a registered nurse and as a nurse prescriber was associated with the number of weekly patients prescribed medication.

Conclusion: Further research is needed about the nurse prescribers work experience in relation to their prescriptions.

Significance: This study contributes to knowledge about the quantity of nurse prescriber's patients prescribed medication.

Learning objectives: The study gives a brief understanding of Finnish nurse prescribing and factors affecting their quantity of patients prescribed medication.

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Theme: APN's Role in Shaping a Healthier, More Equitable World

**Advanced Practice in Complex needs**

**Kirsty Paterson<sup>1</sup>, Jamie Lee Cooper<sup>1</sup>**

<sup>1</sup>Glasgow City Health and Social Care Partnership, Glasgow, United Kingdom

Developing a community-based model of care for skin and soft tissue infections and deep vein thromboses in people who inject drugs in Glasgow City Centre

The Complex Needs Advanced Nurse Practitioner(ANP) service commenced May 2021. The model provides physical health outreach care to vulnerable homeless patients in Glasgow City.

Deep vein thrombosis and skin and soft tissue infection (DVT/SSTI) are prevalent due to injecting drug use. 50% of PWIDs report SSTI per year on a recent survey. The annual incidence of DVT is 100 times greater in PWIDs than in the general population. 15% develop chronic leg ulcers double the rate of the general population post DVT, 6%. A needs assessment has been undertaken with the aim of developing a pathway to improve the management of these conditions in this population.

Currently a patient with a suspected DVT or complex SSTI is referred to hospital for further assessment +/- Doppler USS. Patients often refuse to attend or take irregular discharge, compromising their care. The proposed care model enables patients to have a full assessment including Doppler USS, therapy including monitored anticoagulation therapy and long-acting intravenous antibiotic therapy using an individualised risk assessment.

The ANP has undergone specific training in doppler US and a DVT/SSTI pathway has been developed in conjunction with Infectious Diseases secondary care expertise. This pathway with planned data collection both for individual outcomes as well as impact on unscheduled secondary care will be described.

This service development aims to provide patient centred care in the community for this vulnerable patient group, reducing secondary care cost. We will describe the development, challenges and planned evaluation of the service.



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Theme: Investing in the APN Health Workforce

**Advanced Practice Coordinating Education Supervisor - Why are these roles needed?**

**Danielle Pinnock<sup>1</sup>, Catherine Bridge<sup>1</sup>, Jen Watson<sup>1</sup>**

<sup>1</sup>The Royal Marsden Hospital, London, United Kingdom

Background: A new role for the trust which I started 1 year ago. My part-time post is funded by the supervision money from NHS England for each student on the APN Pathway.

Objectives: To prove the importance of this role in a busy NHS hospital and how it starts to show investment in the APN Workforce.

Methods of Approach: To personally gather data on what my role has included in the first 12 months organised under the topics Developing, Building, Retaining and Sustaining.  
Trust APN Census collated for Trust.

Key Learnings:

Developing -

Support for students on the APN Pathway and on individual modules

Support for APN Practice Facilitators and Supervisors.

Career Planning and advice. A Career Booklet was developed around 4 pillars/ACCEND Framework.

'Grow our Own' ethos

Link between HEI and hospital

Building -

Workforce Planning - jobs to develop into.

Job Development Plans

Named Education Supervisor

Recognition of role.

Networking

Retain -  
CPD included in worktime  
Job Plans  
Support  
Teamwork

Sustain -  
Clinical Supervision  
Monthly APN Forums  
Funding for CPD  
Mentors - can choose from any clinical area

Trust APN Census - results being collated

Conclusion: Training to become an APN or ACP is hard work and support really varies depending on where you work and who are your Practice Facilitators/Supervisors. These are experienced individuals who we want to complete the training and then entice to stay in our Trust. We need to provide them with support and room to continue developing.

Significance: More of these Education Coordinator posts need to be developed to support APN's/ACP's so that we do not lose their expertise.

In the NHS Workforce Plan we aim to train another 3,000 Advanced Practitioners by 2031 so we need to continue to develop those in post to become the next practice facilitators



**Just in Time Learning in Academic Practice****Louise Preston<sup>1</sup>**<sup>1</sup>Glasgow Caledonian University, Glasgow, United Kingdom

Background: Just-in-Time Learning (JITL) is a contemporary teaching practice that allows learners to access information when needed. Currently, successful in a variety of industries, it has, more recently, been utilised in clinical healthcare practice. The premise of JITL echoes the right time, right place, and right patient approach taken within current healthcare settings. The author's previous projects have achieved successful engagement and feedback in clinical practice using a variety of modalities to deliver JITL, ranging from social media use, case-based discussion, 'learning on the loo' and Quick Response (QR) Bars.

Within the MSc Nursing Advancing Professional Practice Programme at Glasgow Caledonian University, the relationship between academic and clinical practice requires the scaffolding of theoretical concepts and experiential learning to applications in real-life scenarios. QR codes are utilised in class to direct the learners to suggested further reading and peer-delivered podcasts to reinforce the taught didactic topics and provide access to dynamic groups that can role model and share professional behaviour and values. Additionally, online quizzes and online polling software engage learners in active learning techniques to further develop knowledge and skills

Objectives: To evaluate the use of innovative digital active learning and teaching pedagogies within academic practice

Methods: Utilizing a multi-pronged approach to analyze information from student feedback surveys, triangulation of quantitative Linkert scale ratings and qualitative open-ended questions will measure the opinions, attitudes and behaviours of learners.

Results/Key Learning: Evaluation of the impact of these teaching modalities on student engagement and student outcomes is ongoing.

Significance: Results will influence the development of future innovative approaches for enhanced APN education and continued professional development.

**Using oral history techniques to preserve Nurse Practitioner/Advanced Practice Nursing history****Dr Joyce Pulcini<sup>1</sup>, Dr Karen Wolf, Dr Patricia Rissmiller<sup>2</sup>, Dr Patricia Maher, Dr Patricia White<sup>3</sup>**<sup>1</sup>George Washington University School of Nursing, Washington, DC, United States, <sup>2</sup>Simmons University, Boston, MA, United States, <sup>3</sup>UMass Chan Medical School Tan Chingfen Graduate School of Nursing, Worcester, MA, United States

Background: Oral history collects memories and personal commentaries of historical significance through recorded interviews (Ritchie, 2003). Since 2022, a group of nurse practitioners has been collecting and recording oral histories of Massachusetts nurse practitioners, who were pioneers in the movement from 1965 to 1985. At least 30 nurse practitioners were interviewed from that era using the oral history platform, TheirStory, which records, transcribes and codes the interview.

**Objectives**

1. To describe Massachusetts Nurse Practitioner History Project
2. To describe the oral history technique and the advantages and disadvantages of the software used to record and analyze the data.
3. To explain the findings of the project and qualitative themes identified.
4. To discuss the implications of the project for future NP/APN history projects worldwide.

**Methods or Approach**

1. The Massachusetts Nurse Practitioner History Project will be described.
2. Techniques using the Oral History Platform, TheirStory to collect data will be explained
3. Study findings will be described along with an analysis of qualitative themes.
4. Pros and cons of using the oral history technique will be discussed as well as implications for future studies using oral history methods worldwide.

Key Learnings or Results: Key learnings included how to train and orient interviewers, how to use the oral history platform, and how to code and analyze the data. This project generated a great deal of enthusiasm among Nurse Practitioners in Massachusetts and has applicability worldwide.



Conclusion: The Oral history technique lends itself well to gathering data on NP/APN history. Methods are easily carried out and the NP/APN community is enriched by knowledge of its own history.

Significance: As the population of NP/APNs grows and country level organizations evolve worldwide, consideration must be given to identify and interview early NP/APN leaders and to take the time to learn about their lived experiences.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **Successful implementation of clinical supervision for Advanced Nurse Practitioners (ANPs) in Primary care**

**Claire Punton**<sup>1</sup>, Laura McCabe<sup>1</sup>, Lindsay Simpson<sup>1</sup>, Amanda Sloss<sup>1</sup>, Carol Lamb<sup>1</sup>

<sup>1</sup>NHS Lanarkshire, United Kingdom

Background: Clinical supervision delivers psychological and emotional support to staff aiding their ability to critically reflect on and action all things related to their clinical practice. Scottish Government 2017 defined supervision as a provision for nurses to reflect on and discuss aspects of their role which motivates and inspires them, along with elements which frustrate and concern them. This allows for joint working with their supervisors to develop solutions and learning opportunities. This also aids supported development of Trainee ANPS.

Objectives:

- To deliver and implement a sustainable clinical supervision process for trainee ANPs and ANPs within Primary Care.
- Consistent support of practitioners in urgent care.
- Supportive measure for development of ANP share packs.

Methods/ Approach: Improvement methodology was obtained through PDSA cycles and group discussions on feedback from supervision sessions. With this, a new document has been developed to streamline the process and ultimately enhance the experience of those involved.

Proctors model was chosen as it facilitates normative, formative and restorative methods of supervision. This model has been adapted by NHS Lanarkshire Primary Care to ensure satisfaction from the contributors and contributees. This separates the facilitation of the normative approach used in management supervision, allowing for a mix of formative and restorative supervision for clinical supervision.

Key learning and results: Separate management supervision and clinical supervision sessions.

- Year 1 trainees - 4 weekly
- Year 2 trainees - 6 weekly
- Qualified ANPs - 12 weekly
- Feedback from each session obtained

Conclusion

- Reduction in attrition rates.
- Increased confidence and competence in practitioners.
- Improvement in emotional wellbeing.
- Supportive and trusting environment.
- Governance

Significance (Impact and reach): This theme would be under education and development and will evidence the benefit of separate clinical supervision to the ANP role in Primary Care.



**Parkinson's Nursing Specialist delivered intervention for preventing falls in Parkinson's people after deep brain stimulation**

**Xian Qiu**<sup>1</sup>, Jue Wang<sup>1</sup>, Bomin Sun<sup>2</sup>, Dianyou Li<sup>2</sup>, **Qinghua Cha**<sup>1</sup>

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<sup>2</sup>Department of Neurosurgery, Shanghai Jiaotong University School of Medicine Affiliated Ruijin Hospital, Shanghai, China

Background: Deep brain stimulation (DBS) is a widely used therapy for Parkinson's disease, but the fall prevention is a key safety problem to be addressed.

Objective: To survey the fall problem and to estimate the effect of a Parkinson's nursing specialist delivered prevention program for fall prevention among PD after DBS.

Method: 298 PD were recruited in the first part. The self-report fall situation was collected before, 6 months and 12 months after DBS. In the pilot intervention, 19 patients who had at least once fall before DBS were recruited: 9 were assigned to usual care and 10 were assigned to intervention group. All 19 participants received routine care followed by Parkinson's nursing specialist: the usual-care group received an information on DBS. The intervention group had an individually strategy program before discharging, 1 month after DBS. Based on IMB model, including information enforcement, motivative interview (led by nursing specialist with the PD and their family on the promotion and restriction factors), and home basic daily exercises.

Results: Among 298 patients, the incidences of fall were 27.5%, 24.8%, and 19.1% before, 6 and 12 months after DBS separately. The average age was 65±8.38 years, the average disease duration was 9.65±4.48 years, 85% participants' HY level were under 3. In the pilot program: significant difference in fall incidence was found 6 months after DBS [intervention to control group odds ratio (OR) 0.003, 95% confidence interval (CI) 0.002 to 0.418; p <0.05]. No difference was found in the frequency of fall at 6 months after DBS [intervention to control group (0.7±1.88 vs 2.56±2.92), t=1.66, p =0.12].

Conclusions: Fall is an important safety problem for the Parkinson's Disease patients even after DBS surgery. The Parkinson's Nursing Specialist lead fall prevention program may be effective in reducing fall rates in Parkinson's people after DBS surgery.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Accelerating and credentialing key learning for clinical Advance Practice Nurses**

**Kelly Reid<sup>1</sup>, Graham Macaulay<sup>1</sup>**

<sup>1</sup>Robert Gordon University, Aberdeen, United Kingdom

Background: This poster introduces a dynamic and comprehensive clinical module designed to elevate the skills and knowledge of Advanced Practice Nurses (APN's) across diverse disciplines.

It was recognised that several key areas of knowledge for APNs are gathered over several years, often through informal in-house teaching and experiential learning. Our aim was to condense this knowledge and deliver it at Masters level both as a standalone credential and within the MSc Advancing Practice course.

Objectives: The module objective is to accelerate student learning in several key clinical areas to help students develop confidence and function at a higher level in practice sooner than may otherwise be the case. Topics include interpretation of Arterial blood gases, common blood laboratory results, ECG reading and essential X-Rays.

Approach: Following engagement with students on other AP modules and the MSc Advancing Practice course, it became clear that a need to provide a masters level module covering common clinical tests and investigations existed and provide a natural counterpart to the pre-existing ACES module.

Delivery is through a series of virtual live and pre-recorded sessions to widen access for remote and rural students whilst remaining cognisant of the current pressures within practice. Simulations and case studies provide a platform for experiential learning and skill enhancement.

Key learnings: The module evaluated well in student feedback for both subject relevance and academic level.

Conclusion: This clinical module is meticulously crafted to equip APN's to deliver high-quality, patient-centred care across diverse clinical settings. Empowering professionals with the skills, knowledge, and confidence required to excel in today's rapidly evolving AP landscape.

Significance: The module provides APNs with advanced decision support tools, leading to more accurate and precise diagnostic interpretations in an efficient and timely manner. This encourages standardisation



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

**Virtual Provision of an Advanced Clinical Examination Skills (ACES) module: A 1st phase enhancement project**

**Kelly Reid<sup>1</sup>, Michelle Duncan<sup>1</sup>, Graham Macaulay<sup>1</sup>**

<sup>1</sup>Robert Gordon University, Aberdeen, United Kingdom

Background: During the pandemic there was a need to transition teaching of advanced clinical examination skills (ACES) to a virtual learning environment. Post pandemic, this has not reverted to face-to-face methods and this institution is one of few universities educating ACES in this way. Virtual provision consists of synchronous virtual learning using the flipped classroom approach whilst asynchronous learning allows students to progress at their own pace. Experience has shown that this method is conducive to time and workforce whilst supporting work/life/study balance. Whilst benefits are clear, unfortunately, through networking and informal feedback, it is apparent that a paradigm exists. Informal feedback from some practice partners and stakeholders suggested that virtual education in ACES offers a lesser student experience than face-to-face learning. Despite this, several metrics suggest otherwise. It is however recognised that the module is not completely fit for purpose in its current format and therefore enhancement is required.

Objectives: To establish an evidence base for continued virtual provision and enhance existing virtual provision.

Approach: A literature review was undertaken, and a stakeholder event was held to gather data around thoughts and opinions whilst analysing current provision and identifying areas for enhancement.

Key learnings: Analysis of enrolment figures demonstrate a clear appetite for continued virtual provision. Remote and rural students have steadily accounted for around one third of enrolment whilst wider national enrolment continues to grow. Virtual provision was positively evaluated by students.

Conclusion: As a result of this project, the following enhancements have been made:

Inclusion of Virtual Medical Simulation to online teaching.

An interactive, virtual care centre has been embedded into the virtual learning environment, offering a more engaging, interactive learning experience.

Significance: Widened access and enhanced Advanced Practice student experience.

Scope for further research into the student experience of learning ACES by virtual means



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Advanced Practice Nurses Perceptions of Spirituality Globally**

**Prof Melanie Rogers**<sup>1</sup>, Dr Joanne Pike<sup>2</sup>, Dr Kim LaMarche<sup>3</sup>, Dr Caryn Andrews<sup>4</sup>, Dr Gulnar Ali<sup>5</sup>, Dr Abby Kra-Friedman<sup>5</sup>, Dr Elisabeth Gulliksen<sup>1</sup>, Prof Stephen Curran<sup>1</sup>, Dr John Stephenson<sup>1</sup>, Harriet Slater<sup>1</sup>, Dr Nasreen Lalani<sup>6</sup>, Dr Junhong Zhu<sup>7</sup>, Dr Yanping Niu<sup>8</sup>

<sup>1</sup>University of Huddersfield, Huddersfield, United Kingdom, <sup>2</sup>Wrexham Glyndŵr University, Wrexham, Wales, <sup>3</sup>Cape Breton University, Sydney, Canada, <sup>4</sup>Hebrew University of Jerusalem, Jerusalem, Israel, <sup>5</sup>University of East London, London, England, <sup>6</sup>Purdue University, West Lafayette, USA, <sup>7</sup>Zhejiang University, Hangzhou, China, <sup>8</sup>Changzhi Medical College, Changzhi, China

Background: Spirituality is often defined as what gives patients hope, meaning and purpose. However, it is often a concept confused with religion and omitted from clinical practice.

Objectives: This presentation presents Advanced Practice Nurse global perceptions of spirituality.

Methods: Quantitative data were collected from 641 participants worldwide in 2022. A validated questionnaire obtained data on the primary outcomes of spirituality in everyday life (SEDL) and spirituality in practice (SIP) and the secondary outcome Advanced Practice Nurses competencies. Internal consistency of constituent Likert items was assessed using Cronbach's alpha reliability coefficient.

Key results: Reliability analysis revealed good internal consistency of the main measures with alpha values of 0.882 and 0.779 for the SEDL and SIP scales respectively.

SEDL and SIP scores, which were revealed to be strongly correlated, reflected substantively positive views of spirituality in everyday life and in practice.

Multiple regression models revealed SEDL was significantly raised with reporting of religion, faith or spirituality and higher levels of perception that spirituality is integrated within healthcare and can be considered a distinct concept from religion ( $p < 0.001$  in all cases). SIP scores were significantly associated with reporting of religion, faith or spirituality ( $p = 0.003$ ); Chinese ethnicity ( $p = 0.040$ ) and higher levels of perception that spirituality is integrated within healthcare ( $p < 0.001$ ).

Key predictors of higher levels of spirituality perception included self-reported spirituality and/or faith and recognition of spirituality being important and implemented in practice.

Spirituality was viewed by many participants as distinct from religion and the concept was seen as important to integrate into clinical practice.

Conclusion: Spirituality is an important aspect of holistic care which is often omitted in practice. These findings identify that Advanced Practice Nurses view spirituality as important.

Significance (Impact and Reach): This is the first global study of Advanced Practice Nurse perceptions of spirituality.



## Posters - First presenting author Surname: S

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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **The scope, role and dilemma of the advanced practice nurse in stroke care: A mixed methods systematic review**

**Lanjun Shen**<sup>1</sup>, Qunli Xu, Lanlan Zhou

<sup>1</sup>Sir Run Run Shaw Hospital, Zhejiang University School of Medicine, Hangzhou, China

Background: At present, few studies published nationally and internationally involve advanced practice nursing in the field of stroke care, and there is a lack of clarity about the scope, role, and dilemma of ANP in providing stroke services.

Objective: To systematically evaluate the scope, role and dilemma of the advanced practice nurse in stroke care.

Methods: We conducted a hybrid methodical review of literature published in PubMed, CINAHL, Cochrane Library, Embase, Web of Science, CNKI and WanFang data databases up to January, 2024. The quality of selected articles is evaluated with the JBI critical appraisal tools. We used a convergent integrated approach to synthesize the data.

Results: Among the 829 articles, 11 met the inclusion criteria. The results showed that the practice of APN runs through the whole stroke nursing process and was a key part of acute stroke services, including assessment, coordination, education and supervision. The main positive effects include lower readmission rates, shorter thrombolytic times, and improved transitional care. The main difficulties were the lack of senior practical nursing talents, the lack of clarity of roles, the lack of unified information sharing platform, the lack of distinctive nursing service items, the lack of policy support and legal protection.

Conclusions: This systematic review highlights the scope, role and dilemma of the advanced practice nurse in stroke care, indicating the potential for implementing advanced practice nursing in stroke care to improve stroke care and improve patient' outcomes.

Significance: Advanced practice nurses have a positive impact on patients in stroke care.



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Theme: Investing in the APN Health Workforce

### **Establishment of evaluation index system of core competence of advance care planning for nurses in oncology department**

**HongYing Shi**

<sup>1</sup>Henan Cancer Hospital, Henan, China

Background: The completion of ACP for cancer patients is the shared responsibility of a multidisciplinary team. As the health professionals who have the closest contact with patients and their families in the multidisciplinary team, nurses play an important role in the implementation of patients' ACP. The core competence of nurses directly affects the implementation effect and promotion degree of ACP. Effective evaluation of the core competence of oncology nurses in advance medical care planning is an increasingly important issue for nursing managers.

Objectives: The evaluation index system of the core competence of advance care planning for nurses in the department of oncology was established to provide an objective basis for evaluating the core competence of advance care planning for nurses in the department of oncology.

Methods: On the theoretical basis of the post competency model, the evaluation index system of the core competence of oncology nurses in advance care planning was initially established through literature analysis, and the indexes and weights were determined by Delphi method and order graph method.

Results: The evaluation index system consists of 4 first-level indicators, 13 second-level indicators and 61 third-level indicators. The questionnaire recovery rates of the two rounds of expert letter consultation were 90% and 100%, the expert authority coefficient were 0.950 and 0.950 respectively, and the Kendall harmony coefficient was 0.173 and 0.240, respectively. After the second round of expert correspondence, the average importance scores of 61 third-level indicators were 4.00~5.00.

Conclusion The evaluation index system constructed in this study is scientific, reliable and practical, and can provide a basis for the evaluation of the core competence of the advance care planning for oncology nurses.

Significance: This index system can provide an objective basis for evaluating the core competence of pre-emptive medical care plan for oncology nurses

## **Application of Combined Whole Thoracic Vibration Sputum Discharge System and Extracorporeal Diaphragmatic Pacing in Pulmonary Rehabilitation of ICU Patients with Difficult Weaning**

**Zhan Shirong**<sup>1</sup>

<sup>1</sup>The First People's Hospital of Foshan, Guangdong, Foshan, Guangdong, China

**Objective:** To observe the effects of extracorporeal diaphragmatic pacing on diaphragmatic function in ICU patients with difficult weaning.

**Methods:** A total of 182 patients with respiratory failure who received mechanical ventilation through an artificial airway in the ICU from January 2019 to June 2020 were selected. Among them, 150 patients who met the inclusion criteria were randomly divided into experimental (80 cases) and control groups (70 cases). The control group received routine drug treatment and cardiopulmonary physiotherapy, while the experimental group underwent extracorporeal diaphragmatic pacing in addition to the control group interventions. Diaphragm thickness and mobility were measured 7-10 days after treatment, and the ventilator usage time and ICU stay were compared between the two groups.

**Results:** The diaphragm thickness and mobility of patients in the experimental group were significantly increased compared to those in the control group ( $P < 0.01$ ), with statistically significant differences. The ventilator usage time and ICU stay were significantly reduced in the experimental group compared to the control group ( $P < 0.03$ ,  $P < 0.01$ ), with statistically significant differences.

**Conclusion:** Combined cardiopulmonary physiotherapy and extracorporeal diaphragmatic pacing effectively increase diaphragmatic muscle strength and endurance in patients with difficult weaning, thereby improving ventilation function and reducing ventilator usage time and ICU stay. This approach holds high clinical value.

## **Induction Programme: Are New Trainee Advanced Nurse Practitioners Prepared for Their New Role?**

**Amanda Sloss, Laura McCabe**, Donna Higgins, Clare Dempsey

The NHS Lanarkshire Primary Care Advanced Nurse Practitioner (ANP) Team has seen increased recruitment. Informal feedback suggested staff felt the induction programme did not prepare them for their role, especially when moving from Acute to Primary Care. In June 2023, a new cohort of eight Trainee ANPs joined the team. A new induction programme was developed to better prepare trainees for the role. A questionnaire gained feedback from this new induction programme with the plan to continue to develop based on the feedback.

- To ensure Trainee ANPs are adequately inducted into the team and their new role.
- To further develop the induction programme based on feedback received.

Improvement methodology was used through PDSA cycles.

Responses were sought from staff members via questionnaires, the results were compiled by the Evaluation & Change Team Manager.

Based on feedback, the new week long induction programme was developed which included external speakers and site visits.

A second questionnaire was developed and sent to the new cohort of staff. While this had the same questions as the first questionnaire, it included questions specific to the sessions delivered at the new induction in order for the programme to be developed further in the future.

Pre Induction questionnaire- 20 responses received, 13 respondents indicated that their induction did not prepare them for their role.

Post induction questionnaire - All 7 responses indicated the new induction programme was either very useful or somewhat useful in preparing them for their ANP role.

The feedback on each individual session was varied dependent on the sessions relevance.

The new induction programme is more beneficial in preparing staff for their new role. The induction will be developed based on the feedback received.

Increase understanding of trainee ANP role, improve staff retention, job satisfaction and support trainees to achieve their goals.

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## **The Benefits and Challenges of Integrating Point of Care Ultrasound Training into Advanced Practice Nursing Education**

**Dr Abbye Solis<sup>1</sup>, Bryan Boling<sup>1</sup>**

<sup>1</sup>Georgetown University, USA

Background: Point of care ultrasound (POCUS) is quickly becoming the standard in assessment and management of patients in the Emergency Department and Critical Care settings and has the potential to radically improve the delivery of care in all aspects of healthcare, particularly in resource-limited environments. Advanced Practice Nurses lag behind our physician colleagues in implementation of POCUS training. There are a number of challenges to adding POCUS training to advanced practice nursing programs including an already full curriculum, lack of qualified advanced practice nursing POCUS instructors, and the additional challenges that an increasingly hybrid/distance learning format presents to teaching a hands-on skill.

### Objectives

1. Understand the benefits of integrating POCUS training into advanced practice nursing education
2. Understand the challenges to POCUS integration into advanced practice nursing education
3. Describe some basic strategies to overcome challenges of integrating POCUS education into advanced practice nursing education

Approach: Discussion of challenges to addition of POCUS training and practical examples for overcoming these challenges

Key learnings: This presentation will address the benefits of inclusion of POCUS training for advanced practice nurses, specific challenges to the addition of POCUS to advanced practice nursing curriculum, and ways that the Adult-Gerontology Acute Care Nurse Practitioner Program at Georgetown University has attempted to overcome these challenges.

Conclusion: POCUS training offers significant benefits to advanced practice nurses and our patients. It can improve speed of diagnosis, assist with management of complex patients, and offer more rapid and less invasive diagnostic studies to patients in resource-limited environments. There are a number of challenges to incorporation of POCUS instruction in advanced practice training programs, but there are also innovative ways to overcome these challenges.

Significance: POCUS is a needed skill for Advance Practice nurses in the 21st century.

## **Using Student Interest for Self-Guided Experiential Learning and Leadership**

**Dr Abbye Solis<sup>1</sup>, Bryan Boling<sup>1</sup>**

<sup>1</sup>Georgetown University, USA

Background: A tenant of pedagogy is to garner excitement about a subject so that the learner can actualize the importance of a particular topic. In adult learners, this allows self-ownership of the learning process: identification of individual learning objectives, developing independent learning strategy, and self-evaluation of outcomes. The development of these skills blends personal identities/interests into more effective medical professionals who value self-learning and growth. Advanced practice faculty can cultivate this experience via 'Student Interest Groups' (SIG) to promote clinical specialty interests and to create leadership opportunities/experiences for their students. Additionally, SIGs can be used to introduce multi-national relationships between future healthcare providers.

### Objectives

1. Define 'Student Interest Group' and how faculty can facilitate inception of SIGs
2. Describe a recommended outline of what how a SIG can be organised, i.e. mission statement, leadership roles and responsibilities, and objectives
3. Describe how Georgetown University's SIG is being used for self-learning and as a recruitment tool
4. Explain how a multinational SIG can assist learners in interprofessional and intraprofessional development

Approach: We will discuss how Georgetown University's faculty developed their POCUS SIG, how it is currently operating, and how we will achieve future goals.

Key learnings: Presenters will outline how to start a SIG and what is needed for the SIG to be successful. Additionally, we will discuss how Georgetown University and the University of Nottingham are working together to create multi-national collaborations with students via a Point of Care Ultrasound Student Interest Group, or POCUS SIG.

Conclusion: Student Interest Groups, or SIGs, can use self-identified interest for extra-curricular learning, to develop leadership skills, and to network with future healthcare providers.

Significance: Not only can SIGs be an incredible opportunity for independent learning but also for the development of future skills necessary for healthcare providers.



NPAPN24017(3)

## **What's Next? Leveraging Advanced Technology to Improve Point of Care Ultrasound Training Across the Globe**

**Dr Abbye Solis<sup>1</sup>, Bryan Boling<sup>1</sup>**

<sup>1</sup>Georgetown University, USA

Background: Point of care ultrasound (POCUS) is quickly becoming the standard in assessment and management of patients in the Emergency Department and Critical Care settings and has the potential to radically improve the delivery of care in all aspects of healthcare, particularly in resource-limited environments. Advanced Practice Nurses lag behind our physician colleagues in implementation of POCUS training. There are a number of challenges to adding POCUS training to advanced practice nursing programs including an already full curriculum, lack of qualified advanced practice nursing POCUS instructors, and the additional challenges that an increasingly hybrid/distance learning format presents to teaching a hands-on skill.

In recent years, we have seen a surge in the growth of tools for online connectivity including online meeting software such as Zoom, social media, and simulation technology. These technologies can be leveraged to expand POCUS training not just in the distance learning environment, but to allow international collaboration and even to expand teaching into resource-limited environments around the world.

Objectives:

1. Describe existing and emerging technologies that can be utilised for teaching POCUS in both the in-person and distance settings

Approach: Discussion of various existing and emerging technologies including online meeting software, virtual reality, simulation, and social media in the teaching of POCUS followed by demonstration of some of the applicable tools.

Key learnings: This presentation will discuss specific use of emerging and existing technologies including online conference software for real-time lectures; simulation, including VR; and social media for networking and curriculum distribution to expand the reach of POCUS teaching and allow for international collaboration in training.

Conclusion: Existing and emerging technologies offer a number of innovative solutions to expanding POCUS training in advanced practice. These include improving teaching of a hands-on skill in distance learning formats, international collaboration, and delivering POCUS to training to providers in remote and/or resource-limited environments.

Significance: Existing and emerging technology can be beneficial not only to enhance the current POCUS teaching but also to expand it into global partnerships.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

## **The role of nurse practitioners providing virtual care in primary care settings: A scoping review protocol**

**Jennifer Splane<sup>1,2,4</sup>, Dr Ruth Martin-Misener<sup>1,2</sup>, Dr Shelley Doucet<sup>3,4</sup>, Melissa Rothfus<sup>1</sup>**

<sup>1</sup>Dalhousie University, Halifax, Canada, <sup>2</sup>Canadian Centre for Advanced Practice Nursing Research, Hamilton, Canada, <sup>3</sup>University of New Brunswick, Saint John, Canada, <sup>4</sup>Centre for Research in Integrated Care, Saint John, Canada

Background: The COVID-19 pandemic catalyzed shifts in healthcare delivery. Nowhere is this more evident than in the rapid widespread adoption of virtual care practices in primary care. Despite this, there is a gap in what is known about its provision by NPs making further exploration of the NP role in virtual care necessary.

Objective: This scoping review will chart the evidence in relation to the implementation and outcomes of NPs providing virtual care in primary care settings.

Methods/Approach: This review is being conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews. The search strategy includes published and unpublished studies without date restrictions and adaptations for each database and/or information source. Databases to be searched include Medline, CINAHL, Embase, Scopus, PsycINFO, and Dissertation and Theses for grey literature. Additionally, the reference list of all included studies will be screened.



Key Learnings/Results: A preliminary search in one database identified 1477 citations for eligibility screening with this number expected to double upon search completion. Data to be extracted includes: 1) characteristics of virtual care practice by NPs; 2) barriers and facilitators to NP-provided virtual care; and 3) outcomes of NP-provided virtual care for patients, organizations, and systems.

Conclusion: Research is needed to inform transformative NP-provided primary care that maximizes the benefits of digital technologies to provide high-value virtual care. This scoping review is a first step toward such transformation because it will enable identification of what the research gaps are related to NP-provided virtual care.

Significance (Impact and Reach): Findings from this review will identify global practice, research, and healthcare policy related to virtual care provided by NPs. The mapped evidence will inform clinicians, researchers, and decisions-makers globally about the uptake and spread of NP-provided virtual care, and its benefits and or harms for patients, health organizations and health systems.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **Networking as essential part of APN work in primary health care - a qualitative study**

**Prof Renate Stemmer**<sup>1</sup>

<sup>1</sup>Catholic University of Applied Sciences, Mainz, Deutschland

Background: APN care for multimorbid patients in GP practices includes not only clinical care but also the coordination of services provided by other healthcare professionals. For this reason, the APNs in the German research project “Case-based care of multimorbid patients in general practice by Advanced Practice Nurses” (FAMOUS) were advised with building up a network in order to have quick access to other healthcare providers if necessary.

Objectives: Reflection on the experiences of APNs who have been working in GP practices for 12 months in their endeavour to build a helpful professional network.

Methods:

Design: qualitative study

Sample: all APNs who are part of FAMOUS (n = 8), employed in GP practices, who cared for multimorbid patients for 12 months

Data collection: guideline-based interviews (n = 8); time of data collection: 09/2022 (after first 12 months of APN intervention)

Data analysis: content analysis using a deductive-inductive procedure (Kuckartz 2018); to manage the text components and units of analysis, we used MAXQDA.

Results: Seven categories were identified. Three of them support the benefit of a professional network: “high acceptance with proactive contact”, “productive case discussions”, “networking is beneficial for everyone involved”; two categories address the effort associated with networking: “low effect with patient-independent contact”, “network building as a time-consuming process”; the last category questions the need for a general network compared to a patient-centred network.

Conclusion: The idea of creating a network is accepted by the APNs and potential network partners. Active networking is mostly carried out by the APNs. This reflects the understanding of the role of APNs in primary care.

Significance: Overall, the involvement of network partners has met with a positive response. However, the time and effort involved is detrimental to network building.



### **To explore the perceptions of NHS Tayside School Nurses (SNs) on their leadership role in practice since achieving the Specialist Community Public Health Nurse (SCPHN) qualification**

Carol Paterson<sup>1</sup>, **Dr Audrey Stephen**<sup>2</sup>

<sup>1</sup>NHS Tayside, Dundee, United Kingdom, <sup>2</sup>Robert Gordon University, Aberdeen, Scotland

**Background:** The importance of nurses developing as leaders is evident in literature, policies and professional body guidelines. SNs are expected to lead on the changing healthcare system and public health agenda and the Scottish Government have invested heavily in the refocused role. This includes education and training in the form of the SCPHN programme. The SCPHN programme in Scotland is a post-graduate Diploma or Masters of Science (MSc) qualification. It prepares nurses with evidence based learning relevant to the advanced nurse practitioner role of the SN and supports them to contribute to the fast growing healthcare agenda and enable improvement to outcomes for children and young people. The Nursing and Midwifery Council (NMC) SCPHN Standards have been revised and university programmes are changing in accordance to be ready for implementation in September 2024. This made it an ideal time to carry out this study, to provide evidence for how successful the current programme has been in developing leadership skills in NHS Tayside SCPHN SNs, and identify where practice development is required to meet the new SCPHN Standards and support leadership development.

**Methods:** A qualitative service evaluation is being carried out with SCPHN SNs in NHS Tayside. A sample of 8 participants have/are taking part in semi structured interviews and data will be analysed thematically.

**Findings:** Themes and key learning from the study will be presented.

**Conclusion:** Key learning from the study will inform practice development, identify personal and structural challenges, and suggest supportive solutions.

**Significance:** Sharing findings from the study with practitioners and educators provides opportunities for development of leadership skills in practice in similar contexts.



### **Does interventional exercise improve Chemotherapy-Induced Peripheral Neuropathy (CIPN) in cancer patients?**

**Li Ting Su**<sup>1</sup>

<sup>1</sup>Changhua Christian Hospital, Taiwan

**Background:** Chemotherapy-Induced Peripheral Neuropathy (CIPN) is one of the common side effects of cancer treatment. It is usually characterized by neurological symptoms such as abnormal skin sensation, numbness, but also reduces the quality of life.

**Objectives:** Therefore, by empirical searching the literature, to explore whether interventional exercises can improve CIPN in cancer patients?

**Methods:** PICO keywords, P: Cancer patients; I: Exercise; C: None; O: Improve CIPN. Published 2020 to 2023 were detected by searching online databases including PubMed, Cochrane, CINAHL, MEDLINE, using a combination of suitable keywords. There are 3 papers that meet the topic, 2 papers have level I evidence, and 1 paper has level 2 evidence.

**Results:** Dhawan et al. (2020) The neuropathic pain score results of the experimental group were statistically significant ( $p < 0.0001$ ) and daily activity function results of the experimental group were statistically significant ( $p = 0.0002$ ); Guo et al. (2022) The Meta-analysis of Quality of life ( $P < 0.00001$ ) and Relieve neuropathic pain ( $P < 0.00001$ ). Lin (2021) The pooled results indicated that exercise interventions significantly improved the CIPN symptoms of the participants ( $P = 0.0006$ ).

**Conclusion:** Using Evidence-Based knowledge translation. Purposive sampling is used to collect cases for cancer patients receiving chemotherapy with Paclitaxel or Carboplatin. A total of 16 patients were enrolled in the experimental group. Shared Decision Making (SDM) was designed to discuss the appropriate exercise program with the patients and their families. The level of neuropathic pain, as measured by the Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) scale, decreased from 15.6 to 9.7 in the experimental group and increased from 16.2 to 14.8 in the control group, which was a significant difference ( $P < 0.05$ ).

Significance: It is expected that this empirical result will contribute to the improvement of various symptoms of peripheral neuropathy, enhancement of quality of life, and smoother completion of chemotherapy.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Does intervention in resistance exercise improve lower limb muscle strength in the elderly?**

**Li Ting Su<sup>1</sup>**

<sup>1</sup>Changhua Christian Hospital, Taiwan

Background: The proportion of Taiwan's elderly population is gradually increasing, and is expected to enter an ultra-elderly society by 2025. "Decreased muscle strength in the elderly" is a killer of frailty and falls in the elderly, which may lead to disability, reduced quality of life, and an increase in unintentional falls.

Objectives: Therefore, by empirical searching the literature, to explore whether interventional resistance exercises can improve lower limb muscle strength in the elderly?

Methods: The empirical literature ,PICO keywords, P: elderly; I: resistance exercise; C: None; O: improve lower limb muscle strength. Published 2020 to 2023 were detected by searching online databases including PubMed, Cochrane, CINAHL, MEDLINE, using a combination of suitable keywords. There are 3 papers that meet the topic.

Results: Kashi et al. (2023)The Meta-analysis of Resistance training significantly improved lower-limb muscle strength ( $p = 0.02$ ). Mahmoudi (2022) The Meta-analysis of Resistance training significantly improved lower-limb muscle strength ( $p < .001$ ).SU et al. (2022)The average ADL, handmuscle strength, balance, and lower limb muscle strength scores of participants in the Elastic Band group had improved significantly more than those of the control group at post test ( $p < 0.05$ ).

Conclusion: Using Evidence-Based knowledge translation. Purposive sampling is used to collect cases for elderly ( $\geq 60$  years). A total of 15 patients were admitted. Intervention exercise using elastic bands. The result is a 30-second chair-stand test. The average number of times in the experimental group was 6.32(times), and the average number in the control group was 3.82(times). The average chair-stand test of the experimental group was better than that of the control group, reaching a statistically significant difference( $p < 0.05$ ). The experimental group was 95% satisfied with receiving elastic band resistance training.

Significance: Older people receiving progressive resistance exercises (elastic bands) can increase lower limb muscle strength.



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Theme: Extending the Reach, Amplifying the Impact, and Realising the Value of APNs

### **The role expectations of nurse practitioners in diabetes management from a stakeholder perspective in China**

**Ran Sun<sup>1</sup>**, Shuo Chen<sup>1</sup>, Mrs JianRong Li<sup>1</sup>, Prof YanLing Wang<sup>2</sup>

<sup>1</sup>Department of Endocrinology, Beijing Tongren Hospital Affiliated with Capital Medical University, Beijing, China,

<sup>2</sup>School of Nursing, Capital Medical University, Beijing, China

Diabetes is a serious global public health problem. The participation of Nurse practitioner (NP) in diabetes management has diversified nursing roles. Meanwhile, the expectation of NP in diabetes management from the perspective of stakeholders was not clear in China. Here, 34 health administrators, endocrinologists and nurses working in different provinces and cities, as well as 23 diabetes patients and their family members, were selected by objective sampling to conduct semi-structured interviews. The data were analyzed by traditional content analysis. We distilled four themes. The first is diverse professional roles, including senior clinical nursing practitioners, educators and consultants, coordinators, and leaders. Second is core role responsibilities including diabetes assessment and diagnosis, drug and non-drug prescription authority, health promotion and health guidance, long-term management and follow-up. The third is role development and expectations such as exploration of educational models, knowledge and practice, coordination and interdisciplinary cooperation. Role opportunities and challenges were also important including major challenges and issues, opportunities and driving factors. Although there are many difficulties in developing NP in the field of diabetes in China, its development still has broad prospects. Our study has an important value and significance, opening up a new perspective and direction for nursing professional development.



### A survey on the cognition and willingness of endocrine nurses towards nurse practitioners

**Ran Sun**<sup>1</sup>, Shuo Chen<sup>1</sup>, Jian Rong Li<sup>1</sup>, Professor Yan Ling Wang<sup>2</sup>

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<sup>2</sup>School of Nursing, Capital Medical University, Beijing, China

The cognition and willingness of nurse practitioners (NPs) in the field of diabetes can provide a basis for the establishment of practicing nurses and their role development. Meanwhile, there is no related research about this field in China. Here, a convenience sampling method was used to select 305 endocrinology nurses from 9 provinces, autonomous regions, and municipalities directly under the central government in China from September 2022 to March 2023. A self-designed survey questionnaire was used for cross-sectional investigation. The questionnaire involves three parts: general demographic information, understanding of diabetes NPs, and willingness to engage in NPs. A total of 305 questionnaires were distributed, and 270 valid questionnaires were collected, with an effective rate of 88.52%. Among the admission requirements for NPs, 70.0% (189/270) believe that NPs should have a bachelor's degree, 73.0% (197/270) believe that they should have the title of supervising nurse, and 75.9% (205/270) choose 5-10 years of specialized nursing experience as the minimum working experience requirement. The top 5 core competencies that NPs should possess in participating in diabetes patient management are clinical core competence [90.7% (245/270)], independent practical competence [81.5% (220/270)], scientific literacy [76.3% (206/270)], information technology literacy and application ability, health service system optimization ability [72.2% (195/270)], and clinical research ability [66.3% (179/270)]. In addition to admission requirements and core competencies, in terms of future development, the expected proportion of self-worth for NPs is [91.11% (246/270)]. Among them, [84.44% (228/270)] of nurses believe that becoming a NP can broaden their practice plans, and [98.51% (266/270)] support the establishment of diabetes related practicing nurse positions. In summary, China is still in the stage of exploring the role of NPs. Although endocrine nurses have a low level of understanding of opening nurses, they are willing to explore their future development.

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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### Risk Factors and Prediction Model for Unplanned Extubation of Pectoral and Abdominal Drainage Tubes in Postoperative Patients

**Yushu Sun**<sup>1</sup>, Xiuping Li<sup>1</sup>, Xiaojie Zhang<sup>1</sup>, Fanglei Gu<sup>1</sup>, Hongying Pan<sup>1</sup>

<sup>1</sup>Nursing Department of Sir Run Run Shao Hospital, Hangzhou, China

Background: There is limited research on the risk of UEX for postoperative pectoral and abdominal drainage tubes.

Objective: To explore the risk factors for unplanned extubation (UEX) of pectoral and abdominal drainage tubes in postoperative patients, and to construct a risk prediction model to provide targeted interventions for clinical practice.

Methods: A case-control study was conducted from 2020 to 2022 in a tertiary hospital surgical ward by selecting patients who had pectoral or abdominal drainage tubes placed. The data of 65 patients who experienced UEX were selected as the case group, and 260 hospitalized patients who did not experience UEX during the same period were randomly matched as the control group. Risk factors were analyzed and a prediction model was constructed.

Results: Logistic regression analysis showed that fixation with adhesive tape (OR=11.842) and abnormal skin around the drainage tube (OR=4.071) were independent risk factors for UEX in pectoral and abdominal drainage tubes (P<0.05), while medical insurance coverage (OR=0.128), use of analgesics (OR=0.205), conscious level (OR=0.080), nursing grade II and below (OR=0.069), multiple catheters placed (OR=0.585), and negative pressure ball drainage (OR=0.274) were protective factors for UEX (P<0.05). The ROC curve and area under the curve (AUC) of the nomogram model were 0.960 (95%CI=0.940-0.979; P<0.001), with a sensitivity of 0.892 and specificity of 0.888.

Conclusions: Attention should be paid to patients with impaired consciousness, self-payment, drainage bag drainage, single dressing fixation, lower nursing levels, no use of analgesic measures, and abnormal local skin conditions. By strengthening clinical education and nursing management, the risk of unplanned extubation can be reduced, promoting faster recovery after surgery.

Significance: The risk prediction model has good discrimination and calibration ability, which can provide a reference for clinical nursing staff to predict the risk of UEX and formulate personalized preventive strategies as early as possible.

**How Nurse Practitioners can address the nation’s poor state of health and effect change to address the ubiquity of non-communicable chronic disease.**

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The convergence of unhealthful social systems, patterns and environments has driven record level high rates of obesity and non-communicable chronic disease in the United States. Together these forces reduce health span, overburden the healthcare system, and create unsustainable healthcare costs. The high prevalence of unhealthy effects and unhealthy Americans has created a pervasive sense of ‘normalcy.’ This societal phenomenon identifies the unmet needs of our traditional healthcare approach. This presentation explores the role of a nurse practitioner who works in a health and wellness capacity. The role combines the foundational nurse practitioner role along with nurse coaching, and lifestyle medicine principles as applied to the healthcare needs of today. Through a patient-partnering approach, the nurse practitioner engages in many interventions surrounding root-cause discovery, health education and health behavior change. These interventions specifically embrace value-based care which includes health care rather than sick care; preventative action rather than reactive action; and quality rather than quantity. The ultimate aims are patient empowerment and improving health outcomes. Amassing these elements into a nurse practitioner role aligns with the quadruple aim thus enhancing patient experience, improving population health, reducing cost, and healthcare team wellbeing in addition to providing constructive consideration regarding the design of health care visits, provider reimbursement and policy. The health trajectory in the United States is on a poor course and in need of a new normal. Nurse practitioners are well positioned to provide a novel approach to better assist patients in navigating an unhealthful nation.



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Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

**Long-Term Impact of COVID-19: Investigating Presentations and Associated Factors in Long COVID One Year Post-Infection**

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Background: An increasing number of COVID-19 survivors have re-entered their communities with persistent symptoms commonly referred to as Long COVID, which last beyond three months. Established evidence indicates diverse Long COVID symptoms; however, knowledge gaps persist regarding the long-term trends, severity, and risk factors associated with Long COVID, necessitating further investigation to clarify these uncertainties.

Objectives: The overarching goal of this study was to investigate the presentations and associated factors related to Long COVID one-year post-infection.

Methods: This correlational study employed a longitudinal design. A cohort of COVID-19 survivors diagnosed between June 2021 and May 2023 was monitored every three months for a year following their diagnosis to track symptoms. Individuals aged 18 or older diagnosed with COVID-19 within the past year were recruited through social media posts and referrals from healthcare providers.

Results: One hundred eighty-two survivors initially agreed to participate, with 176 completing the study. The mean age was 47.56 (SD=16.2), and 51.1% (n=90) of the participants were female. Over time, clinically significant declines in cognitive function and Health-Related Quality of Life (HRQOL) were observed. Deteriorations in symptoms included shortness of breath, reduced physical fitness, and increased health-related worry. Individuals with more severe initial COVID-19 symptoms experienced significantly more declines in cognitive function, physical fitness, and increased shortness of breath a year after infection. Those with lower financial status exhibited significantly poorer HRQOL and heightened health-related concerns.

Conclusion: A year post-infection, the enduring effects of COVID-19 on cognitive function and HRQOL remain significant. Extra attention is warranted for survivors with severe symptoms at diagnosis and those facing economic disadvantages. Future research is essential to identify additional predictors of severe COVID.

Significance: The considerable declines in cognitive function and HRQOL, even a year post-COVID-19 infection, have significant clinical implications, indicating a lasting impact on individuals and the community.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**Evidence-based nursing practice of early rehabilitation exercise in ICU patients with sepsis**

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Background: The long-term survival rate of sepsis patients is relatively low, and ICU-acquired weakness (ICU-AW) is an important factor affecting their prognosis, with a prevalence of 50% to 100%. The implementation of personalized early rehabilitation exercises is considered an important tool in the prevention and treatment of ICU-AW in sepsis patients; however, clinically executed early rehabilitation exercise practice lacks a systematic and scientific evidence-based basis.

Objectives: To summarize early rehabilitation exercise based on the evidence in ICU patients with sepsis, and evaluate the effects.

Methods: Using evidence-based nursing method, the best evidence of early rehabilitation exercise of ICU patients with sepsis was summarized. Through baseline assessment and evaluating clinical situation and obstacles, the strategies for evidence implementation were established and applied. Before and after applying the evidence, the indicators of patients were compared.

Results: No adverse events occurred during the application of evidence. The length of mechanical ventilation was shortened from (120±13.34) hours to (96±11.26) hours. ICU hospitalization time was shortened from (8.10±1.58) days to (7.20±1.38) days. The incidence of ICU-acquired weakness was decreased from 36% to 12%(P<0.01). After the best evidence was applied, ICU doctors and nurses increased the implementation rate of early rehabilitation exercise significantly.

Conclusion: The application of the best evidence for early rehabilitation exercise in ICU patients with sepsis can shorten the length of mechanical ventilation and ICU hospitalization time, reduce adverse reaction, and promote early rehabilitation of the patients.

Significance: Through An evidence-based nursing approach to summarize the best evidence for early rehabilitation exercises for ICU sepsis patients and apply it to practice, with the aim of providing a basis for clinical care and improving the quality of care.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

### **The Evolving Role of Advanced Practice Providers in pneumology department : Improving Patient Access and Patient Satisfaction**

**Yang Tao**<sup>1</sup>

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China's aging population needs more and more respiratory treatment and respiratory pulmonary rehabilitation services, but the number of respiratory physicians remains the same. Advanced practice providers (APP), including physician assistants and nurse practitioners, have improved the continuity of primary and subspecialty healthcare. In recent years, due to the epidemic and full release of novel coronavirus, the patients with severe respiratory pneumonia and AECOPD have increased sharply, and the nurse-led respiratory treatment and respiratory pulmonary rehabilitation have played a huge role. However, to obtain the benefits of enhanced patient accessibility and modern care services, the APP must be successfully integrated into practice. There is little data on how best to incorporate applications into team-based models or how to restructure practices to allow hierarchical responsibility to support autonomy and effective teamwork. We compare national APP and respiratory physician workforce trends, consider approaches to optimize efficiency through integrating APP, and identify opportunities for improved data collection and practice.



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Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

### **Growing the nursing profession: the impact of cross- cultural experiences through novel educational opportunities**

**Dr Wendy Thal**<sup>1</sup>, **Dr Tara Hilliard**<sup>1</sup>

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Incorporating global health into nursing curriculums allows students to grow professionally by expanding knowledge to address health disparities at both a local and global level. International nursing organizations that establish educational guidelines recommend the need to include cultural competency and global awareness in APN programs. A learning environment that can promote these expanded views involves collaborative partnerships that communicate and designs activities with respect to diverse cultural needs. One such collaborative program allowed APN students and public health students from the US, and their respective counterparts at a university in the Philippines to learn multi-directionally by sharing a novel, educational experience to help prepare the students to be competent and caring professionals in a unique cultural healthcare environment. APN students worked with local health care providers in rural health clinics, city health department clinics, and hospital settings. Health care provided in these settings was patient centered with decisions made based on cultural needs and resources available within the community. A great strength of this program was in the multi-layered approach of sharing knowledge; faculty to student, student to student, and faculty to faculty. Student debriefing indicated a high degree of satisfaction describing it as a "highlight and culmination of my education as a Nurse Practitioner and as a Nurse." The purpose of this presentation is to describe the development of the cultural immersion experience in the Philippines, explore opportunities for faculty and student growth in developing the advanced practice nursing role across cultures, and share cross cultural perspectives on the impact of global health experiences on professional growth.



NPAPN24023(1)

## **Implementation of advanced practice nursing in primary health care in Brazil**

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**Background and objective:** The demographic and epidemiological transition challenges health care systems worldwide, also in Brazil. Consequently, Primary Health Care (PHC) has to increasingly address complex patient demands. To reach this goal, several countries have encouraged the expansion of the nurses' roles in PHC, through Advanced Practice Nursing (APN). However, in Brazil – although discussions have already begun – the implementation and research initiatives on the subject are still scarce and in early stages. Since little is known about the obstacles and chances of the implementation of APN in PHC, this study investigates them from the perspective of nurses, physicians, and other stakeholders in Brazil.

**Methods:** We conducted 4 focus groups with healthcare professionals, representatives of health and professional entities, e.g. the federal council of nurses, state health secretariat, physician national federation, health national council, and representatives of physicians' and nurses' associations, in 2023. Data were analyzed by means of thematic coding.

**Results:** The results show how nurses and physicians currently collaborate in PHC. Work overload resulting in nurses' reluctance to take over more advanced tasks, a deficit in training for interprofessional collaboration, lacking management support and possible non-acceptance of the population for the APN roles are seen as the main barriers. Nevertheless, the implementation of APN in PHC may improve patients' access to care, strengthen the nursing profession and enhance organization as well as longitudinality in the regional healthcare networks. Professional nursing organizations were reported to be essential for the development of APN in PHC. Thus, the discussions should be expanded to the professional councils, to create legislation and guidelines to support nurses' role development.

**Conclusion:** The implementation of APN roles in PHC can be enabled by an ongoing dialogue among politics, professional representatives, and patients. The role of the APN should be clarified to strengthen its perception in the population.



NPAPN24023(2)

## **Chances and challenges to strengthening nurses' role in interprofessional collaboration with physicians in primary health care: comparative qualitative study of Brazil and Germany**

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**Background and objective:** The growing complexity of health needs around the world has led to the expansion and strengthening of nursing practice in Primary Health Care (PHC). The growing number of chronic conditions with consequent rearrangements in care processes require interprofessional collaboration between nurses and physicians. Our study comparatively analyzes the current forms and prospects of collaboration between these professional groups. We thereby contribute to discussions about strengthening the nurses' role in PHC in Brazil and Germany.

**Methods:** We investigated the perspectives of nurses and physicians in nine focus groups (4 in Brazil, 5 in Germany) totaling 49 PHC stakeholders and practitioners in both countries, in 2023. Data were analyzed by thematic coding.

**Results:** The analysis resulted in two themes emerging from a common thematic structure for Brazil and Germany: (1) current forms of collaboration and (2) prospects for interprofessional collaboration. The participants indicated that PHC models shape the professional collaboration which includes limited time and resources, as well as hierarchical relationships between doctors and nurses. Thus, nurses are contributing to meet health needs and reducing physicians' power predominance on health care. Participants envisioned different models of future collaboration between nurses and physicians. These range from complementarity of both professions with PHC nurses having a high autonomy to expand their scope of practice assuming physicians' tasks with close communication and cooperation between both professions. Physicians' and nurses' diverged opinions were more remarkable in Germany than in Brazil and could be related to their different contexts.

**Conclusion:** Our study contributes with evidence on the possibilities for changes in the nurses' and physicians' relationship in a collaborative practice in PHC, especially considering the strengthening of nursing practice.



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Theme: Investing in the APN Health Workforce

**Advanced Practice Nurse (APN) Anaesthesia - Literature Review about their Scope of practice**

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Background: Perioperative care requires healthcare professionals with more competences and skills in clinical assessment and patient education and advocacy to respond to current and future challenges in healthcare. Advanced Practice Nurses in Anaesthesia may offer a way to improve perioperative care. Currently, in Switzerland, perioperative care is mostly provided by specialist nurses in anaesthesia who rarely possess a Master of Science in Nursing degree mandatory for Advance Practice Nursing. Therefore, delineating the scope of practice and role of APN Anaesthesia is necessary.

Objectives: The aim of the study is to describe the scope and competences of APN Anaesthesia.

Methods: We conducted a scoping review searching the PubMed, PsycINFO, CINAHL and Scopus data-bases. The search included papers from 2010-2023 dealing with the prerequisites and scope of practice of APN Anaesthesia.

Results: The search found 1749 papers, of which 24 were included. Descriptions of APN Anaesthesia from USA, Asia and Europe were assessed. There is no uniform scope of practice for APN Anaesthesia. The CRNA role in the USA, with a high degree of autonomy, is best described. Some APN Anaesthesia are focused on specific medical conditions such as dementia or autism. They also work in settings such as post-operative care, outpatient clinics, paediatric day surgery or palliative care. Practice development, clinical assessment, education and family involvement encompass the ex-panded role of an APN Anaesthesia compared to the specialist nurse in Anaesthesia.

Significance: APN Anaesthesia can close a gap in Anaesthesia as they possess a combined skill set of medical and extended nursing care. This role may offer a way to the Swiss perioperative setting to respond to the challenges in healthcare.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

**Development and Validation of the Hospital professionals' Version of the Quality of Dying and Death Questionnaire in the Neonatal Intensive Care setting**

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Background: An accurate measure of the dying and death experience holds promise for illuminating how clinical staff can better manage end-of-life care. Currently, there are no instrument in China for measuring the quality of dying and death of neonates in the neonatal intensive care unit (NICU).

Objective: The goal was to evaluate the reliability and validity of the Hospital Professionals' Version of the Quality of Dying and Death Questionnaire (Neonatal Intensive Care Unit-Quality of Dying and Death Questionnaire, NICU-QODD) in the neonatal intensive care setting.

Methods: The NICU-QODD format was based on the adult QODD. The item pool was created from qualitative interviews with parents of neonates who died in NICU, and targeted literature review. The draft of the NICU-QODD was developed using a Delphi methodology and pre-investigation. Subsequently, the reliability and validity of the NICU-QODD were tested.

Results: A five-domain,20-item NICU-QODD was developed. The I-CVI of the NICU-QODD was 0.78-1.00, and the S-CVI was 0.97. Exploratory factor analysis revealed five common factors that accounted for 76.35% of the total variance. Confirmatory factor analysis demonstrated a good fit for the five-factor model of the NICU-QODD ( $X^2/df=1.25$ , CFI=0.99, TLI=0.98, IFI=0.99, RMSEA=0.03, RMR=0.03). The Cronbach's  $\alpha$  coefficient of the NICU-QODD was 0.92, and the Spearman-Brown coefficient was 0.75.

Conclusion: The NICU-QODD shows to be a valid and reliable instrument for measuring the quality of dying and death of neonates in neonatal intensive care setting.

Significance: The NICU-QODD addresses the need in evaluating the dying and death of neonates in neonatal intensive care settings in China. It provides a theoretical basis and practical guidance for purposeful intervention, benefiting neonates and their families.



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Theme: The Dynamics of Interdisciplinary Collaboration in Advanced Practice Nursing

**Factors and benefits associated with the improvement of cardiac function in patients discharged following hospitalization for heart failure undergoing disease management programme by heart failure nurse specialist**

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Background: The beneficial effects of disease management programs have been demonstrated for patients with heart failure (HF). An improvement in left ventricular ejection fraction (LVEF) in response to care is correlated with improved outcomes. This study investigated the factors and the benefits associated with the improvement of cardiac function 6 months after hospitalization for HF with reduced EF (HFREF) undergoing disease management programme (DMP) by HF nurse specialist (HFNS).

Methods: This is a retrospectively study. The inclusion criteria were: (1) Discharged from HFREF hospitalization; (2) undergoing DMP by HFNS for 6 months; and (3) LVEFs measured during and 6 months after HF hospitalization. HF with improved LVEF (HFimpEF) was defined as HF with a baseline LVEF  $\leq 40\%$ , a  $\geq 10$  points increase from baseline LVEF, and a second measurement of LVEF  $> 40\%$ . Otherwise, patients were defined as HFnot-impEF. From baseline to 18 months after discharge, emergency department visit (ED), re-hospitalization, and all medical expenses were analyzed.

Results: In a total of 100 patients (HFimpEF group: 57; HFnot-impEF group: 43), there were no significant differences in age or other baseline characteristics. Within 6 months after discharge, compared to HFnot-impEF, HFimpEF had lower ED ( $p=0.038$ ) and all cause re-hospitalization rates ( $p<0.001$ ), but similar medical expenses. Multivariable analysis showed that ED rate is the only independent factor associated with the improvement ( $p=0.002$ ). From 6 months to 18 months, HFimpEF had lower ED and re-hospitalization rates, and lower medical expenses ( $p<0.001$ ).

Conclusions: For patients after HFREF hospitalization undergoing DMP by HFNS, reduction of ED rate within 6 months post-discharge helps patients to be HFimpEF. Although the medical expenses are similar within 6 months after discharge, HFimpEF is associated with reduced ED and re-hospitalization rates and all medical expenses during long-term follow-up.

Significance: DMP by HFNS contributes to the cost-benefits in the long-term phase.

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Theme: APN's Role in Shaping a Healthier, More Equitable World

**Psychometric Validation and Cultural Adaptation of the Chinese Version of the Penn State Electronic Cigarette Dependence Index among Adolescents and Young Adults**

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Background: Electronic cigarette (e-cigarette) use has surged in China, particularly among youth. E-cigarettes can cause negative physical and mental health outcomes due to nicotine dependence. Identifying and measuring e-cigarette addiction accurately is a crucial step before assessing the impact of addiction on public health and taking evidence-based preventive measures. However, there is a paucity of reliable tools for e-cigarette dependence measures existing in China.

Objectives: This study aims to translate, adapt, and validate the Chinese version of the Penn State Electronic Cigarette Dependence Index (PS-ECDI-CHN).

Methods: PS-ECDI-CHN was translated from English and tested on 314 Chinese e-cigarette users for reliability and validity following the American Academy of Orthopedic Surgeons (AAOS) cross-cultural scale adaptation guide. Confirmatory Factor Analysis, internal consistency, test-retest reliability, and cross-validity were performed.

Key results: The CFA results recognized the PS-ECDI-CHN as a three-factor structure with adequate construct replicability. The initial scale had an acceptable internal consistency of 0.63 and a good test-retest reliability of 0.81. The modified scale exhibited good internal consistency (0.74) and good test-retest reliability (0.80). Statistically significant correlations were observed between the initial PS-ECDI-CHN score and self-rated addiction (r: 0.52), time to first vape (r: -0.20), and vapes per day (r: -0.18).

Conclusion: The PS-ECDI-CHN is a reliable measure of e-cigarette dependence among Chinese youth who vape. It will help guide the development of prevention and intervention strategies and shed light on the public health implications of e-cigarette use in China.

Significance: This study has proven the PS-ECDI-CHN is a reliable tool that can be used for exploring different aspects of e-cigarette use and dependence among the Chinese population. PS-ECDI-CHN may further help differentiate between e-cigarette dependence and conventional cigarette dependence and promote policies, treatments, and educational efforts to protect youth from e-cigarette addiction.

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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**Construction of core competency evaluation indicators for breast advanced practice nurses**

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Background: Breast cancer has become the primary disease threatening the life and health of Chinese women. Therefore, it is necessary to cultivate the breast advanced practice nurses.

Objective: To construct core competency evaluation indicators for breast advanced practice nurses and provide reference basis for the selection, training, certification of breast advanced practice nurses.

Methods: A preliminary draft of the core competency evaluation index system for breast advanced practice nurses was developed through literature research and expert interviews. From February to October 2022, the Delphi method was used to conduct two rounds of questionnaire consultations with 16 experts, complete the screening and revision of indicators, and determine the weights of indicators at all levels.

Results: The effective response rate of the questionnaire for two rounds of expert consultation is 100%. In the first and second rounds of expert consultation, the authority coefficients of experts were 0.873 and 0.869, respectively. The coordination coefficients of expert opinions for the first, second, and third level indicators in the second round of expert consultation were 0.501, 0.635, and 0.413, respectively (all  $P < 0.001$ ). A core competency evaluation index system for breast advanced practice nurses was ultimately formed, consisting of 5 primary indicators (breast professional ability, professional humanistic literacy, education and communication ability, self-development ability, leadership and management ability), 12 secondary indicators, and 59 tertiary indicators.

Conclusion: The core competency evaluation index for breast advanced practice nurses constructed in this study has a high level of expert enthusiasm and coordination of opinions. The index system has a certain degree of practicality and scientificity, and can provide reference basis for the selection, appointment, and training of breast advanced practice nurses.

Significance: The core competency evaluation index system can provide a reliable basis for the cultivation and evaluation of the core competence of breast advanced practice nurses in China.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Effectiveness of the Teach-Back Method on Emotional Distress and Self-Care of patients with Inflammatory Bowel Disease**

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Background: IBD is a set of diseases that damage the digestive tract and result in a variety of medical and psychological symptoms, including stomach discomfort, diarrhea, anxiety and depression. Patients benefit from education because it makes them feel better and lessens their emotional stress.

Objectives:

1. To determine status of emotional distress (level of anxiety and depression) and self-care ability of IBD patients before and after intervention;
2. To implement the teach-back method to prevent and control emotional distress and improve self care abilities with the intervention group;
3. To compare the emotional distress and self-care abilities of IBD patients during the pre-test and post-test between the control and intervention groups.

Methods:

1. IBD patients in gastroenterology department of a Grade-A hospital from January to June 2023 were selected and divided into control and intervention group with 50 patients in each group by random number table;
2. The control group adopted the conventional health education mode; The intervention group implemented the Teach-back model;
3. Setting up Teach-back health education team;
4. Applying Teach-back education;
5. The negative emotions of the two groups after 3 months of intervention were compared (using Zong Self-rating Anxiety scale (SAS) and Zong Self-rating Depression Scale (SDS), and the self-care ability was used to exercise of self-care agency scale (ESCA).

Results: After 3 months of intervention, the self-care ability of the observation group (144.23±14.36) points was significantly higher than that of the control group (125.34±13.62) points ( $P < 0.05$ ).

The scores of anxiety (40.52±8.99) and depression (42.32±9.61) in the observation group were lower than those in the control group (47.93±6.46) and depression (48.18±7.60) ( $P < 0.05$ ).

Conclusion: Teach-back model can improve the self-care ability of IBD patients and reduce negative emotions.

Significance: The application of Teach-back model with IBD patients has achieved good results. This education model can be extended to other disease.



**Nursing care of a whole blood replacement for a patient with severe autoimmune hemolytic anemia**

**Zhihong Wang**<sup>1</sup>, Nursing care of a whole blood replacement for a patient with severe autoimmune hemolytic anemia  
Yongshi Luo<sup>1</sup>

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**Objective:** The annual incidence of autoimmune hemolytic anaemia (AIHA) is 0.8-3.0 per 100,000, with a mortality rate of 11%. Haemolytic crisis is a life-threatening acute haemolytic anaemia or an acute exacerbation of chronic haemolytic anaemia. We reported a case of severe AIHA in which first-line treatment with glucocorticoids was ineffective and a haemolytic crisis developed, then treated with whole blood replacement (WBR). The aim of study is to increase awareness of AIHA, WBR and reducing mortality.

**Methods:** The patient's haemoglobin concentration was 21g/L, hematocrit was 0.086, Coombs test: direct anti-human globulin test was positive (++++), indirect test was positive (++) , general plasma replacement could not met the therapeutic needs, and was switched to WBR. The key points of nursing care included: adjustment of the WBR program, personalized configuration of replacement solution and adjustment of replacement process , close observation of vital signs and extracorporeal circulation blood flow during the period, management of pipeline safety and precise management of immunosuppressive drugs.

**Results:** The patient underwent WBR on 5th and 13th day after admission during the anticoagulation period. The coagulation function was closely monitored, the hospital infection prevention and control measures were strictly implemented; after precise treatment, the patient's haemoglobin increased from 21g/L to 81g/L, and the hematocrit increased from 0.086 to 0.251, and she was discharged from the hospital on 27 days after admission.

**Conclusion:** The patient's successful treatment benefited from the close cooperation, and the successful implementation of WBR needs to be based on skilled plasma replacement technology, and each step during the operation may affect the quality and effect of replacement. Therefore, the nursing team must be skilled in the principles of plasma exchange, the significance of the setting of each parameter, and pay attention to the occurrence of complications and therapeutic intervention.



**Similarities and differences between Advanced Practice education in the United States of America and England: A trainee Advanced Clinical Practitioner perspective**

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**Background:** Six trainee Mental Health Advanced Clinical Practitioners (Mental Health) took part in an exchange visit to Boston, Massachusetts to understand how Advanced Practice education and clinical practice is delivered in the United States of America.

**Objectives:** This poster presentation will identify some of the differences and similarities between advanced practice education in both countries from a trainee Advanced Clinical Practitioner perspective.

**Approach:** Data showing the differences and similarities between advanced practice education in both countries will be presented. Student perspectives related to educational experiences will also be explored on the poster.

**Key learnings:** Having an international perspective of Advanced Practice enhances the trainee experience. The ability to share knowledge and experience across health care settings and cultures enables students to reflect on Advanced Practice in the global context.

**Conclusion:** Educational experiences in both countries share many commonalities. such as shared values, the provision of evidenced based holistic, compassionate and individualised care. International exchange visits are a valuable experience for the students taking part as they broaden their knowledge, understanding and appreciation of other healthcare systems and ways of working.

**Significance (Impact and Reach):** Exploring other countries approaches to Advanced Practice education affords trainees the opportunity to consider the international perspective on practice.



**Digital Technology in the application of Advanced Practice Nurse Practice: Implications for advanced practice nurses**

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Background: Traditional nursing needs to write all kinds of complicated nursing records, repeatedly manually identify patients, check medical orders and drugs. With the vigorous development of Internet + nursing services, informationized intelligent nursing emerges at the historic moment.

Objectives: Digital technology is the core of information and intelligent nursing, including information and communication technology, wearable devices, artificial intelligence and other emerging technologies, which can achieve the purpose of providing full life cycle care to more patients with less human resources nursing.

Methods or Approach: By searching CNKI, Wanfang, Web of Science, PubMed, Embase and Cochrane systematic review database.

Key learnings or results: A total of 281 literatures were retrieved, and 8 literatures were finally included after being screened by de-duplicating and reading the full text.

Conclusion: The progress of digital technology to promote advanced nursing practice contains both promoting factors in the development course of the obstacle factors.

Significance (Impact and Reach): But overall, diversified digital technology plays a positive role to promote the development of advanced nursing practice, and better able to increase the advanced practice nurses' practice ability and core competence.



**Enhancing the Pass Rate of the Anesthesia Specialist Nurse Examination**

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To safeguard and uphold the working rights of anesthesia nurses, the Ministry of Health and Welfare officially launched the Anesthesia Specialty Nursing Training and Examination System in 2020. The pass rate for our hospital was only 59.32%, lower than the national average. In order to enhance the professional clinical capabilities of our anesthesia nurses and improve the pass rate, an analysis of potential reasons was conducted, leading to the following improvement strategies.

1. Provide comprehensive anesthesia nursing education and training to strengthen candidates' theoretical abilities.
2. Introduce training related to Objective Structured Clinical Examination (OSCE) and organize scenario-based simulation exams with designed teaching materials to train candidates in critical thinking and clinical response skills.
3. Two weeks before the exam, incorporate oral exams directly into real-life clinical situations, with anesthesiologists posing questions to increase candidates' practice opportunities.

Following these improvements, the pass rate for our hospital's anesthesia specialty nursing exam increased to 88.5%, surpassing the national average. Our hospital is committed to nurturing professional talents in anesthesia nursing. Leveraging this successful experience, it has been included in standardized training courses. For two consecutive years, the pass rate for our hospital's anesthesia specialty nursing exam has reached 100%. As of 2024, 95% of our hospital's staff are qualified as anesthesia specialty nurses, enabling us to provide high-quality anesthesia safety care for surgical patients and showcasing the value of anesthesia specialty nursing.



### **Longitudinal patterns and predictors of cognition trajectories among Chinese stroke patients: A 7-year prospective study**

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**Background:** The cognitive levels in stroke patients do not exhibit a continuous pattern of being uniformly low or high, but rather, each patient demonstrates a heterogeneous pattern in their cognitive trajectory.

**Objectives:** To identify distinct cognition trajectories over a 7-year period in stroke patients, as well as to determine the baseline predictors affecting these trajectories.

**Methods:** This analysis uses data or information from the CHARLS dataset and Codebook, Version D as of June 2021 developed by the Gateway to Global Aging Data. A total of 774 patients with stroke (mean age = 69 years, 447.5% men) were included in this study. Baseline predictors of cognition trajectories were collected, including patients' personal information, financial support, health status, and physical measurement. Group-based trajectory modeling was conducted to identify the homogeneous subgroups with different cognition trajectories. Multinomial logistic regression was then performed to determine whether baseline predictors were associated with these trajectories in stroke patients.

**Results:** Three distinct cognition trajectory groups were identified: "low decreased" (n =237, 30.6%), "middle-increased" (n = 248, 32.0%), and "high-sustained" (n = 289, 37.3%). Multinomial logistic regression analysis revealed that baseline education and depression significantly predicted patients' cognition. Importantly, better depression at baseline was only significantly associated with the high-sustained cognition trajectory compared to the low-decreased trajectory.

**Conclusion:** This study revealed that only one-third of the stroke patients belonged to high-sustained cognition group after 7 years.

**Significance:** Strategies aimed at improving depression, health literacy, and social support should be developed to maintain satisfactory cognition in stroke patients. Additionally, further studies with long-term follow-ups are needed to identify other potential factors and the baseline predictors that influence cognition trajectories.



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Theme: Aligning Advanced Practice Nursing with Global Health Imperatives and Health Systems Resilience

### **Advanced practice nurse management of breast cancer-associated lymphedema**

**Prof Shaoyong Wu<sup>1</sup>**

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**Background:** Patients with BCRL require lifelong treatment. However, the adherence to treatment is generally low, and low adherence leads to unstable lymphedema control and adverse consequences. The APN management model is an individualized, whole-body care model that relies on a multidisciplinary team to run through the whole stage of the patient's illness, which can effectively improve the treatment effect of BCRL. In this study, the APN management model was used to manage BCRL patients individually and throughout the whole process.

**Objective:** To design a nurse-led lymphedema management programme for APNs and to evaluate the effect of this programme on the treatment outcomes of BCRL.

**Methods:** A total of 86 patients with BCRL were numbered according to the treatment time, and the patients were divided into control group and intervention group (43 cases each) according to the random number method. The control group received conventional BCRL nursing, and the intervention group received APN-mediated management mode. Baseline data were collected from the two groups, including general demographic data, lymphedema stage and treatment, and the perimeter measurement method, mRSS and BCLE-SEI were used to evaluate the swelling of the limbs, The degree of skin hardening and lymphedema symptoms of the affected limb were evaluated. Compare the changes in the above indicators after 1 year.

**Results:** After 1 year, the limb volume, skin sclerosis and lymphedema symptoms of the two groups were significantly improved compared with those before treatment ( $P < 0.05$ ), but the limb volume, mRSS score and BCLE-SEI in the intervention group were significantly lower than those in the control group ( $P < 0.05$ )

**Conclusion:** The APN management mode can accelerate the recovery process of patients with BCRL, and correct skin fibrosis and lymphedema.

Significance: The APN management model can guide patients to self-de-swelling intervention at home, or refer doctors to accelerate the recovery process of patients.





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Theme: APN's Role in Shaping a Healthier, More Equitable World

**The effects of aromatherapy and music intervention on pain and anxious of breast cancer patients and potential mechanisms**

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Background: Breast cancer is one of the most common malignant tumors in women, and its incidence ranks first in female malignant tumors. Surgery is still the mainstream treatment for breast cancer. A Certified Registered Nurse Anesthetists(CRNA) in China discovered breast cancer patients have different degrees of pain, anxiety and other stress reaction. Therefore, a randomized controlled trial was conducted by CRNA.

Objective: To carry out appropriate intervention for breast cancer patients in perioperative period to reduce the stress reaction caused by the disease, intraoperative trauma, anesthesia. The project was approved by the hospital's ethics committee.

Methods: Total 100 breast cancer patients were recruited in our study. Patients were assigned randomly into the control group, the aromatherapy group, the music group and the joint-therapy group, each group with 25 patients. The patients in the control group received regular post-surgical nursery, while the patients from other groups received aromatherapy, music, or both in addition to the regular nursery. The scale of anxiety and pain were measured. The measurements were carried on at three time points, namely before surgery 30min (T1), after the recovery period of anesthesia 30min (T2), and 4 hours after the removal of anesthesia tubings (T3).

Results: At T1, the patients from all groups reported no significant difference. At T2, the scale of anxiety decrease significantly (comparing T2-T1,  $p < 0.0001$ ). Moreover, the anxiety index decrease from the control group, the aromatherapy group, the music group to the joint-therapy group. The scale of pain shows no differences between the groups. At T3, both the scale of pain and anxiety decrease upon therapies (comparing T3-T1,  $p < 0.05$ ).

Conclusion: Both intervention can decrease anxiety and pain of the breast cancer patients. The joint therapy show better effect than alone.

Significance: The non-pharmacological intervention can reduce pain and anxiety during perioperative period, and recover quickly.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Effects of nurse-led cognitive-motor dual-task training based on mobile health technology on the elderly with cognitive frailty: A quasi-experiment study**

**Jiajun Xue**<sup>1</sup>

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Background: Cognitive frailty can lead to many adverse health outcomes in the elderly, but it is potentially reversible, so timely intervention is needed. Traditional intervention methods cost manpower and material resources, while mobile health technology can make up for this limitation.

Objective: To investigate the feasibility of nurse-led cognitive-motor dual-task training based on mobile health technology in people with cognitive frailty. Furthermore, the study aimed to explore the potential effect of this intervention on individuals with cognitive frailty.

Methods: A total of 74 older adults with cognitive frailty were screened at a Cognitive Memory Clinic of a Class III Grade A hospital in Beijing. The control and intervention groups received health education related to cognitive frailty, with the intervention group receiving the additional benefit of mobile health technology to complete cognitive-motor dual-task training at home for 12 weeks, three times a week. At baseline (T0), post-intervention (T1) and one-year follow-up (T2), MoCA-P, FFP, SPPB, and MFES were employed to evaluate cognitive function, frailty, physical function, and fear of falling, and to assess the impact of cognitive-motor dual-task training on these measures.

Results: The intervention group exhibited significantly improved cognitive function, frailty, physical function, and fear of falling compared to the control group post-intervention and at one-year follow-up ( $P < 0.05$ ).

Conclusions: The cognitive-motor dual-task training program based on mobile health technology developed by nurses exhibited high compliance in older people with cognitive frailty. The intervention was found to significantly improve cognitive function, frailty, physical function, and fear of falling in older individuals with cognitive frailty, and showed a specific long-term maintenance effect.

Significance: This study provides evidence for the promotion and application of mobile health technology, and serves as a practical basis for home health intervention for older individuals in the post-pandemic era.



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Theme: Educational and Regulatory Landscapes Shaping Advanced Practice Nursing

**Nurse-to-APN transition: A continuing professional development strategy based on the results of a mixed-methodology study**

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Introduction: The two most commonly identified advanced practice nurse (APN) roles are Clinical Nurse Specialist (CNS) and Nurse Practitioner (NP). Continuing professional development (CPD) is central to nurses' lifelong learning and is vital for keeping nurses' knowledge and skills up-to-date. CPD resources must be made available and accessible or nurses' efforts to be the role of APN can be hampered

Objective: This article aims to introduce a newly constructed CPD model based on the results of a previous mixed-methodology study and analyse the effectiveness of new strategies in improving the quality of nursing education within the clinical context.

Methods: The mixed-methodology study was conducted in a tertiary hospital to explore the learning experience of CPD. Based on the above data, the new CPD education framework involves: 1) Each ward adjusts the education curriculum, and delivery model to nurses' needs. 2) The hospital provides opportunities for inter-profession and multi-hospital collaboration and communication as well as specialist certification. 3) Construct personal promotion and competency criteria.

Findings: Four themes emerged through semi-structured face-to-face interviews: 1) Education delivery method. 2) Education needs and preferences. 3) supportive learning resources. 4) learning outcome. Then, an online questionnaire was designed to underpin this qualitative study. Blended learning was the nurses' preferred study model (n=782, 96%), and needs for basic nursing practice, research, emergency role play and NP-level education were mostly reported. The results after applying a continuing professional development strategy from 2022-2023, 10 nurses get additional master's degrees, and 48 nurses get domestic-level specialist certification. 58 utility patents were acquired and 45 article publications among the nursing group.

Conclusion and significance: This study constructs a CPD education strategy underpinning the results of previous mixed-methodology study. It improves hospital-level nurse education and helps develop ANP. This experience gives an example of the continuing professional development of nursing staff.



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Theme: APN's Role in Shaping a Healthier, More Equitable World

**Comparison of SF-36 and QLS-AA in measuring quality of life in patients with aplastic anemia: a cross-sectional study**

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Background: Aplastic anemia (AA) is a bone marrow failure syndrome. As its prevalence increases, there is growing concern about its quality of life (QoL). The majority of research have used the 36-item Short Form Health Survey (SF-36) to evaluate QoL in Chinese AA patient population. The Quality of Life Scale for Aplastic Anaemia Patients (QLS-AA) is specifically tailored for this group and has been shown a good reliability and validity in the Chinese population. However, it remains undetermined whether these two assessment instruments are truly measuring equivalent constructs.

Objectives: The study aims to conduct an analysis of QoL among Chinese AA patients by utilizing SF-36 and QLS-AA.

Methods: In this cross-sectional study, 306 patients with AA were enrolled from two hospitals in China. The study examined the ceiling and floor effects, reliability, structural validity, convergent validity and discriminant validity of the two scales.

Results: The ceiling and floor effects of SF-36 were higher than those of QLS-AA. The Cronbach's  $\alpha$  coefficients of SF-36 were 0.622~0.911, and two factors were extracted by principal component analysis (PCA), with a cumulative contribution of 62.481%; the Cronbach's  $\alpha$  coefficients of QLS-AA were 0.793~0.932, and one factor was extracted by PCA, with a cumulative contribution of 79.815%. Pearson correlation analysis showed a significant positive correlation

between two scales ( $r=0.743$ ;  $p<0.001$ ). Both scales had discriminant validity in terms of disease duration, work/study situation, economic dependence, blood transfusion situation and degree of anemia. Additionally, QLS-AA is sensitive to marital status.

Conclusion: The findings indicate that both scales are viable instruments for assessing QoL in AA patients, although, the QLS-AA exhibited superior performance in psychometric testing.

Significance: This study is the first to evaluate the validity of two scales for clinical use in patients with AA. The study may serve as a reference for clinical nurses in selecting assessment tools.

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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Digital Health Care Technology Intervention for Chronic Obstructive Pulmonary Disease Compared to Regular Nursing**

**Cui Yi<sup>1</sup>**

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Background: The incidence and mortality rates of Chronic Obstructive Pulmonary Disease (COPD) remain high. Providing self-management training to patients can improve their quality of life and reduce hospitalizations. This study aims to evaluate the effectiveness of using digital health care technology for self-monitoring and management in the daily nursing of moderate to severe COPD patients.

Objectives: To clarify and explore the effectiveness of digital health care technology in improving the quality of life and clinical outcomes of COPD patients.

Methods: A total of 160 COPD patients from the respiratory department of a third-grade A hospital were selected and randomly divided into a digital health care technology intervention group and a regular nursing group, with 60 patients in each group. The efficacy of digital health technology nursing intervention was compared with that of regular nursing after 12 months. The health status of COPD patients was assessed.

Results: After 12 months, the relative risk of hospitalization in the digital health technology group was 0.83 compared to the regular nursing group. There was a significant difference in general health status between the two groups, with the digital health technology group having better health status. The average number of outpatient visits for COPD patients receiving digital health treatment was 4 times, while those receiving regular nursing had an average of 5.5 visits ( $P=0.06$ ). The average number of outpatient visits for nurses was 1.5 times and 2.5 times respectively ( $P=0.03$ ).

Conclusion: Digital health care technology cannot improve specific symptoms of COPD, but it can help patients improve their overall health status; improving depression scores, reducing hospitalizations, and reducing the number of outpatient visits by general practitioners also bring benefits to the nursing of COPD patients.

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Theme: APN's Role in Shaping a Healthier, More Equitable World

### **Exploring the Effectiveness of Case Manager-led Advanced Nursing Practice on Geriatric Hip Fractures: A Pragmatic Randomized Controlled Trial**

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Background: Geriatric Hip Fractures are characterized by high incidence, disability, and mortality. We need to implement an effective management model that supports modern medicine to promote patients' health outcomes and economic benefits. Case manager is a type of Advanced Practice Nurse who provides medical service to patients through "patient-centered" process with total disease management.

Objectives: The purpose of this study was to develop a case manager-led advanced practice nursing model on geriatric hip fractures and to evaluate its effectiveness.

Methods or Approach: The study included 81 patients in a pragmatic randomized controlled trial. The intervention was a case manager-led management for 41 elderly hip fracture patients, including the selection process for geriatric hip fracture with Chinese characteristics, multidisciplinary team formation centered on case manager, comprehensive "patient-centered" management with phased focus, intelligent management and follow-up, the use of accessible methods for information exchange and so on.

Key learnings or results: Compared with the control group, the length of hospitalization ( $14.3 \pm 6.7$  d) , cost ( $75k \pm 13k$  RMB) , Harris Hip scores ( $72.0 \pm 7.4$  points) , Activity of Daily Living scores ( $75.5 \pm 6.5$  points) and satisfaction ( $98.1 \pm 0.5$  points) at 3 months postoperatively, were significantly improved in the study group ( $12.2 \pm 6.4$  d,  $68k \pm 12k$  RMB,  $86.1 \pm 6.1$  points,  $84.6 \pm 6.4$  points,  $98.7 \pm 0.3$  points,  $P < 0.05$ ) .

Conclusion: The results of the study suggest that case manager-led advanced nursing practice for geriatric hip fractures can effectively improve patient prognosis and clinical service, enhancing the quality of life.

Significance (Impact and Reach):The value of case manager on geriatric hip fracture was demonstrated, providing case management-related ideas for the advanced practice.



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Theme: Investing in the APN Health Workforce

**The development of an advanced practice nursing network in a university hospital in Germany - a document analysis**

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Background: The advanced practice nursing role development is becoming more and more established in Germany. There are well-known implementation guidelines for APN roles, but currently little is known about the implementation of APN networks in a clinical setting and how it develops over time.

Objectives: The purpose of our explorative, retrospective analysis is to identify changes in contents and topics in the implementation of a clinical APN network in the University Medical Center in Hamburg.

Methods: We conducted a document analysis of the network protocols from 2017 to 2022 to review, evaluate and synthesise the topics. The data were organised using MAXQDA and content analysis by Mayring was performed.

Results: A total of 41 protocols were included in the analysis. The results shows that the frequency of the APN network meetings annually increased over time. The four categories ANP role development, network knowledge, quality of care and participatory network design, were extracted as main topics from the protocols. The categories gave more insights e.g. the importance of the exchange in the internal APN network, implementation strategies of the APN role and information transfer from theory to practice. After four years of APN network implementation, we found out that there was a thematic change in the weighting of the topics of the network meetings from role development to quality of care.

Conclusion: With our study we were able to show for the first time how the thematic content changes as part of the implementation of an APN network in a clinical setting over the years. These results can give an overview of the specific topics. More research is necessary to link the developments in the network to the status of concept development.

Significance: The results can have an influence on the planning of APN network development and support other clinics.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Whether telehealth interventions are effective for cancer screening and which remote technologies are most effective? A network meta-analysis**

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Background: Cancer poses a severe threat to life expectancy and has an increasing mortality rate. Cancer screening is a pivotal method for reducing mortality from disease, but the screening coverage is still lower than expected. Telehealth interventions have demonstrated benefits in cancer care, yet there is a lack of clarity about their effects on cancer screening. Additionally, there is no consensus regarding the most effective teletechnologies for promoting screening in average-risk individuals.

Objectives: To detect the impact of telehealth interventions on cancer screening and to identify the most effective teletechnologies.

Methods: Six English databases were searched. Two individual authors completed the literature selection, data extraction, and methodological evaluations. Traditional pairwise analysis and network meta-analysis were performed to identify the overall effects and compare different teletechnologies.

Results: Thirty-four eligible RCTs were enrolled. Overall, telehealth interventions showed statistically significant effects on the improvement of cancer screening (RR = 1.19, 95% CI: 1.12 to 1.25). Subgroup analyses revealed that telehealth interventions were most effective for cervical cancer screening (RR = 1.23, 95% CI: 1.09 to 1.39), and rural populations also experienced benefits (RR = 1.92, 95% CI: 1.07 to 3.46), but there was no improvement in screening for older adults (RR = 1.08, 95% CI: 0.96 to 1.22). The network meta-analysis indicated that mobile applications (96%), video plus telephone (88%), and text message plus telephone (69%) were associated with more obvious improvements in screening than other teletechnologies.

Conclusion: Telehealth interventions were effective for the completion of cancer screening. Mobile applications, video plus telephone, and text message plus telephone are the three forms of teletechnologies most likely to improve cancer screening.

Significance: In the digital age, efforts to compensate vulnerable groups for access to effective telehealth interventions are necessary. More well-designed RCTs involving direct comparisons of different teletechnologies are needed in the future.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Comparative analysis of the efficiency of emergency rescue work by specialized nurses**

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Objective: To explore the optimization of the working process of emergency nurses and form a unique working mode in emergency room, so as to improve the working efficiency

Methods: A convenience sampling method was used to select 100 patients in the resuscitation room of the emergency department of a tertiary class A hospital from September 2023 to November 2023 as the research subjects. Conventional nursing mode was adopted for control group by the nursing group while optimized workflow nursing mode for the observation group by emergency specialist nurses. The emergency registration time, infusion implementation time, ECG monitoring implementation time, outpatient examination time, admission time, resuscitation success rate and satisfaction of patients were compared for the two groups.

Results: The observation group had shorter emergency registration time, infusion implementation time, ECG monitoring implementation time, outpatient examination time, and admission time than the control group ( $P < 0.05$ ). The resuscitation success rate of the observation group was 92.6%, significantly higher than that of the control group (90.1%) ( $P < 0.05$ ). The nursing satisfaction rate of the observation group was 98.2%, significantly higher than that of the control group (96.6%) ( $P < 0.05$ ).

Conclusion: The work effect of emergency nurses is accurate, and the timeliness and effectiveness of resuscitation have been greatly improved, which enhances patients' satisfaction and contributes to the establishment of good doctor-patient relationship.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

### **Application of brain-computer interface technology in rehabilitation of stroke patients**

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Stroke patients are often left with different degrees of dysfunction in different aspects, which seriously affects patients' schedule and quality of life. At present, the rehabilitation of stroke patients mainly relies on passive and repetitive training of patients, and the rehabilitation effect is not ideal. Brain computer interface is a cutting-edge rehabilitation technology that completely does not rely on peripheral nerves and muscles to interact with the external environment. This technology can interpret the movement intention of patients in real time, establish the connection pathway between the human brain and the machine, and conduct closed-loop feedback training. Trigger the neuroplasticity of the brain, ultimately achieve the purpose of functional rehabilitation of stroke patients, and provide patients with individualized rehabilitation training. This paper reviews the domestic and foreign research progress of brain-computer interface technology in the field of stroke rehabilitation in recent years, expounds the working process and principle of brain-computer interface technology, summarizes its application status in the aspects of stroke limb dysfunction, cognitive impairment, speech impairment and psychological rehabilitation, and finally analyzes its challenges and development trends, with a view to promoting the rapid development of brain-computer interface technology. It provides a new idea for the rehabilitation of stroke patients.



**Adverse events and the contributing factors in Chinese nursing homes: a multisite cross-sectional study****Prof June Zhang<sup>1</sup>**, Dr Zhang-an Wang<sup>1</sup><sup>1</sup>Sun Yat-sen University, Guangzhou, China

**Introduction:** Adverse events in nursing homes are unplanned, unexpected, or unwanted incidents occurring during elderly care that cause unintended and unnecessary harm to older individuals. It has been suggested that the contributing factors of adverse events in nursing homes perceived by staff are far less than those in hospitals. This study aims to estimate the occurrence of adverse events and examine the contributing factors perceived by staff in Chinese nursing homes.

**Methods:** We recruited 691 front-line staff with more than one-year experience from 11 nursing homes in Southern China during August 2021 to January 2022. Participants were investigated by a self-designed general information questionnaire, the Adverse Event Reporting Awareness Scale, and the Adverse Event Reporting Habit Scale. Descriptive statistics, Chi-square test, t-test, and binary logistic regression were used for data analysis.

**Results:** A total of 13 types of adverse events were screened out in nursing homes, and 477 out of 691 participants (69.0%) estimated that the adverse events “had happened” in the past year. Falls, unplanned extubation, and pressure sores are the top three adverse events. Healthcare professionals estimated that adverse events that “had happened” was 2.06 times (95%CI=1.133.77) that of elderly care workers. The adverse event reporting awareness (OR=1.24, 95%CI=1.151.34) and reporting habits (OR=1.04, 95%CI=1.011.08) of the staff both impacted the estimated occurrence of adverse events positively.

**Conclusions:** Most staff estimated that adverse events “had happened” in the past year. Healthcare professionals and staff with better adverse event reporting awareness and adverse event reporting habits estimated more occurrences of adverse events.

**Practical Applications:** Nursing homes should attach great importance to and prevent types of adverse events of elderly residents. Elderly care workers with worse adverse event reporting awareness and reporting habits are the key group for further intervention.

**Is risk prediction models as an emerging trend for managing cancer-related fatigue: A systematic review and critical appraisal****Yun Zhang<sup>1</sup>**, Prof Xiaolin Hu<sup>1</sup><sup>1</sup>Department of Nursing, West China Hospital, Sichuan University/West China School of Nursing, Sichuan University, Chengdu, China

**Background:** Cancer-related fatigue is a persistent symptom that significantly affects the quality of life of cancer survivors and requires better management. The use of prediction models for cancer-related fatigue management is becoming increasingly popular; however, a lack of strong evidence regarding the performance, quality, and clinical utility of these models.

**Objectives:** To systematically identify, describe, and evaluate the existing risk prediction models for cancer-related fatigue.

**Methods:** A systematic search of seven databases (EMBASE, Cochrane Database, MEDLINE, CINAHL, CNKI, SinoMed, and Wanfang) was conducted from inception to August 14, 2023, to identify studies that reported the development of risk prediction models for CRF. Two researchers independently performed a comprehensive assessment of the included studies by using the CHARMS checklist, PROBAST, and the TRIPOD statement.

**Results:** Seventeen studies were included in this review. These models predicted cancer-related fatigue in various cancers, including breast cancer, prostate cancer, gynecological tumors, and lung cancer. The most commonly included predictors were anxiety and depression (n = 33), age (n = 24), chemotherapy status (n = 11), sleep quality (n = 15), and pain (n = 9). Twelve studies assessed the model performance by ROC, which ranged from 0.60 to 0.91. Although most models exhibited good predictive performance, a higher risk of bias was observed because of inappropriate handling of missing data methods and an imbalance in events per variable.



Conclusion: Risk prediction models are effective approaches for CRF management and precision care of cancer survivors; however, to date, only few studies have exhibited the potential to provide beneficial models for clinical practice.

Significance: Future research on prediction models should aim to not only enhance the clinical utility of the developed models but also maintain a balance between the improved predictive ability of the models and their cost-effectiveness, which could promote equitable cancer supportive care.



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Theme: Advancements in Digital Health and Technology for Enhanced APN Practice

**Effects of e-Health interventions on cancer survivors in children, adolescents, and young adults: a meta-analysis of randomized controlled trials**

**Lin Zhou**<sup>1</sup>, Prof Xiaolin Hu<sup>1,2</sup>

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Background: Children, adolescents and young adults (CAYA) cancer survivors in general tend to face more existential challenges and symptomatic distress because of their need for growth transitions and social adjustment. However, the utilization of e-Health interventions for CAYA cancer survivors remains limited and lacks quantitative evidence synthesis. Objective: To evaluate the effectiveness of e-Health interventions on the physical activity, anxiety and quality of life of CAYA cancer survivors.

Methods: Five databases were searched from inception to August 2023 using Medical Subject Headings terms. Two authors independently selected studies and extracted data. The Cochrane Risk of Bias tool was employed to check the methodological quality of the included studies. Intervention effects were estimated by calculating standardized means (SMD) and 95% confidence intervals (CI) using Review Manager 5.4.

Key results: 15 studies comprising 1232 participants were included in the study. E-Health interventions conferred statistically significant benefits with respect to improving physical activity (SMD = 0.7, 95% CI [0.13, 1.27], P = 0.002) and anxiety (SMD = -0.27, 95% CI [-0.44, -0.09], P = 0.003). However, there were no statistically significant differences in quality of life (SMD = 0.09, 95% CI [-0.05, 0.24], P = 0.22). Sensitivity analyses showed that anxiety and quality of life were reliable and robust.

Conclusion: e-Health interventions improved physical activity and reduced anxiety among CAYA cancer survivors but had no significant effect on quality of life. Considering that CAYA cancer survivors grew up in an era of rapid Internet development, personalized e-health interventions based on their information needs and e-technology capabilities will be essential for their healthy development.

Significance: Gaining a thorough understanding of and harnessing the impact of e-health interventions is crucial in promoting equal access to healthcare resources across regions and fosters the enhanced social adaptation and comprehensive growth of CAYA cancer survivors.





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