



## 20th UK Society for Behavioural Medicine Annual Scientific Meeting

**Abstract Booklet** 

Tuesday 25th - Wednesday 26th March 2025 Mercure Bristol Grand Hotel

### **Contents**

Tuesday Presentations	3
Prize Winning Presentations	3
A1 Symposium - Why do the public support or oppose population and planetary health policies? At methods and theory	_
A2 - Cancer	8
A3 - Medicines Optimisation	13
A4 - Novel Methods	
A5 - Multi-topic 5 in 5 presentations	21
B1 - Round Table: Menstrual health: the forgotten data in research	26
B2 - Older Adult Health	27
B3 - Children's Health	32
B4 - Health Care Professionals and training	38
B5 - Digital Health	43
Wednesday Presentations	47
C1 - Sustainability in food choice	47
C2 - Mental Health	50
C3 - Inequalities	53
C4 - Self-management	56
C5 - Behavioural medicine in Secondary Care	59
D1 Symposium - Breaking barriers, building bridges: Understanding ethnic minority and geographic in the cancer care pathway (A UKSBM Cancer Special Interest Group sponsored symposium)	•
D2 - Screening and Sexual Health	66
D3 - Adolescent Health	71
D4 Symposium - Healthy, Sustainable Diets by Co-design – Results from the SALIENT Programme System Trials	
D5 - Addictions	79
E1 Symposium - Co-designing, implementing and evaluating interventions with children and young using the person-based approach: challenges and recommendations	
E2 - Screening and Primary Care	88
E3 - Women's Health	92
E4 Symposium - Promoting inclusive research with older adults: strategies, challenges, and best p	ractices 96
E5 - Health Care Interventions	100
Destars	105

Abstracts marked with � are a 5 in 5 presentation.

Last updated: 11/03/2025

#### **Tuesday Presentations**

### **Prize Winning Presentations**

Improving Muslim Women's Uptake of Breast, Colorectal and Cervical Cancer Screening: Insights from a non-randomised study of a peer-led, faith-based intervention in North East England and Scotland

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Background: Cancer screening saves lives, yet Muslim women participate less often, missing early diagnosis benefits. In 2021, we co-designed a faith-based educational intervention with Muslim women to include peer-led discussions, GP-led education, personal testimonials, and Islamic perspectives. This model was deployed in an acceptability, feasibility, and efficacy trial to improve the uptake of breast, colorectal, and cervical screening among UK Muslim women.

Methods: Underpinned by the Integrated Screening Action Model (I-SAM), we delivered the intervention with 235 Muslim women living in Glasgow or North-East England. Participants were allocated to either face-to-face or online intervention. Primary outcomes were assessment of key trial parameters (e.g. recruitment, peerfacilitator recruitment/training). Secondary outcomes included attitudes to screening, retention of barrier beliefs, and intention to obtain screening. Acceptability was explored qualitatively through focus groups and stakeholder interviews (n=31).

Results: The recruitment target (n=200) was met: 130 women were recruited in North-East England, 105 in Scotland, aged 25-74 (median 43), with 75% of Asian or Asian British origin. On the religious fatalism scale (3-15), the sample mean was 11.4, median 12, suggesting strong fatalistic beliefs. Peer-facilitators (n=15) were successfully recruited and trained to support intervention delivery. Some barriers to screening changed following the intervention (e.g. risk perception), although others did not (worry about male healthcare providers). Intention to engage in screening increased pre-intervention to post-intervention for breast (71.0% to 92.5%, p<0.001, n=200), cervical (63.4% to 92.3%, p<0.001, n=194), and colorectal (58.6% to 92.0%, p<0.001, n=174). Participants (n=31) found the intervention informative and enjoyable, and particularly liked the Islamic perspective and GP health education.

Conclusion: Preliminary results suggest the intervention is feasible, acceptable and effective. Additional analyses are underway, and 6- and 12-month follow-up data are being collected to examine this conclusion further. If confirmed, a larger-scale and randomised evaluation is needed to investigate intervention impact more robustly.

A meta-evaluation of a collaborative approach to develop and evaluate a series of consumer-facing food system interventions targeting health and sustainability

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Background: Meta-evaluation studies assess the quality and effectiveness of research processes, offering valuable insights for interpreting findings and guiding future research.

The SALIENT consortium brings together academic, government and food system partners to co-design and evaluate a range of consumer-facing food system interventions targeting health and sustainability outcomes. Over 40 community and commercial food system organisations have engaged with SALIENT. Eight organisations progressed to evaluate ten interventions.

This meta-evaluation study aimed to understand how and why the SALIENT co-design process worked more or less well in different cases, and identify learnings to improve future co-designed food system initiatives.

Methods: Using principles of Contribution Analysis, a Theory of Change (ToC) was created to describe how SALIENT activities were expected to improve health and sustainability outcomes. Semi-structured interviews were conducted with 28 SALIENT stakeholders including government partners, research team members and food system organisation representatives with varying levels of SALIENT engagement. Data were analysed using Thematic Analysis and interpreted according to the ToC.

Results: Preliminary findings show that many assumptions outlined in the ToC were difficult to meet within the constraints of SALIENT. Stakeholders' health and sustainability goals were misaligned with their wider interests. Implementing ambitious interventions was considered potentially burdensome and presented risks to commercial interests. Restrictive timelines and research requirements made it difficult to develop the necessary trust and commitment with some food system stakeholders. For participating organisations, SALIENT was able to offer benefits, beyond resources and expertise, that resonated with the organisation's operating model.

Conclusions and implications: Our findings suggest that health and sustainability targets are aspirational for many food system organisations, rather than integral to current operating models. Our findings highlight the need for strong government leadership to align interests, provide incentives and demonstrate long-term commitment to drive health and sustainability improvements within the food system.

## A1 Symposium - Why do the public support or oppose population and planetary health policies? Advancing methods and theory

Convenor: Dr James Reynolds, Aston University

This session is aimed at researchers with an interest in public or planetary health, attitude and belief change, and methodology and theory evaluation, as well as policy makers interested in public opinion.

Purpose: The purpose of this research to understand why the public support or oppose effective policies designed to improve population and planetary health.

Objective: The objective of the current symposium is to summarise the evidence we have generated to-date to advance the methodology and theory within this field. In Presentation 1, we summarise the first study in a multi-stage evaluation of how to measure public support for policies. In Presentation 2, we present the first study in a multi-stage evaluation of how to develop and define interventions that target public support for policies. In Presentation 3, we focus on one such intervention: communicating causal evidence. This is the third study in another multi-stage project. Finally, in Presentation 4, we present the results of a systematic review and meta-analysis that evaluates how well one theory – Value-Belief-Norm Theory – explains support for environmental policies.

Rationale: Papers are published every week that test new hypotheses for why the public support or oppose policies. However, these are typically done using poorly developed methods and with few attempts to test or update theories. Our research aims to improve upon these issues and bring disparate findings together to help us understand, predict, and potentially intervene upon, policy attitudes.

Summary: The current symposium presents research on 1) how to measure public support for policies, 2) how to develop interventions to change public support for policies, 3) an evaluation of one intervention that attempts to change public support for policies, and 4) an evaluation of one theory of public support for policies.

### How to measure public support for policies: a scoping review

<u>Dr Maria Goodwin</u><sup>1</sup>, Dr Tess Langfield<sup>1</sup>, Dr Lucy Porter<sup>2</sup>, Dr James P. Reynolds<sup>1</sup> Aston University, <sup>2</sup>University College London

Background: Public support is an important factor for the successful implementation of policies. Insufficient support can lead to public backlash, non-compliance, and dissuade policy makers from implementing effective policies. As such, it is essential that we understand how policy support is conceptualised and identify valid measures of the concept. This scoping review provides an overview of: how 'policy support' is conceptualised/defined, the measurement/assessment tools used to measure public support for public policies, and the extent that measures of support have been validated.

Methods: A pre-registered scoping review was conducted to address these research questions. Inclusion criteria were developed using the Population, Concept, Context framework and were deliberately broad; general population, any quantitative measure of policy support or conceptually related constructs (e.g., desire for government action). We included articles from any policy domain (e.g., health, education). Screening was completed in a two-stage cycle, where 500 title/abstracts were screened in the first instance, until pre-defined saturation criteria were met.

Results: Systematic searches identified 75,538 articles from which 356 articles were included. The analysis identified 396 distinct variables that measured policy support. Only 7% included an explicit definition of the

construct and few used theory to define or conceptualise policy support. Most studies measured support with a single item or a multi-item questionnaire that combined views on several different policies. Almost half of the measures (n=186;47.0%) included psychometric evaluation, most frequently this was internal consistency (n=168).

Conclusions and implications: This review highlights the poor conceptualisation and measurement of policy support across multiple domains. Given the essential role public support has on policy implementation, it is crucial that researchers and policymakers clearly define what they measure and use validated measurements. This review forms part of a larger research programme to improve the methods and measures of policy support in research and practice.

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#### Characterising Interventions to Influence Public Support for Policies: A Scoping Review

<u>Dr Tess Langfield</u><sup>1</sup>, Dr Maria Goodwin<sup>1</sup>, Dr Gareth Hollands<sup>2</sup>, Dr James Reynolds<sup>1</sup> Aston University, <sup>2</sup>University College London

Background: There is increasing interest in developing strategies (interventions) to influence public support for government policies. The aim of this pre-registered scoping review is to identify and characterise these interventions to produce a framework clarifying conceptual boundaries between intervention components, which we call "policy attitude change techniques" (PACTs).

Methods: We searched Web of Science and Proquest for published and unpublished papers which tested whether interventions influenced support for a government policy. Given the large pool of deduplicated articles (391,000+) we used the machine learning functionality in Eppi Reviewer to prioritise our manual screening effort towards likely eligible reports, screening 1008 Title and Abstracts. We full-text screened 129 articles, and extracted interventions from 86 eligible articles including 98 studies from a range of policy domains (e.g., health (53%), climate change (41%), immigration (7%), education (7%)). We used content analysis to develop codes and organise them into categories, inductively and deductively iterating lists of techniques.

Results: We report a working framework consisting of 44 techniques. From the 296 interventions we coded using the framework, the most common techniques used were "communicates issue severity" (N = 130 interventions; consequences of the issue that the policy is designed to address), describes policy benefits (N = 113; beneficial impacts of proposed policy), describes policy (N = 107; information about the proposed policy), and communicates issue prevalence (N = 92; magnitude of the issue the policy is designed to address).

Conclusions and implications: This coding framework will provide a more systematic approach for researchers and policymakers to identify, define, and develop effective and targeted interventions to influence policy support across a range of policy domains. The next steps in this multi-stage project will be to validate this initial framework among a multidisciplinary group of experts.

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#### Causal beliefs and support for health policies

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Background: People's beliefs about the causes of a policy relevant issue are correlated with policy support however a recent systematic review of the experimental evidence finds little support for a causal interpretation of this relationship. The current study tests the hypothesis that these null results are due to interventions that were designed to target general causal beliefs, as opposed to specific and corresponding causal beliefs.

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Methods: N = 2393 participants were recruited to match UK census quotas for age, sex, region, and SES. Participants were randomly allocated to one of four groups in a pre-post-control design. The groups were 1) Control group, 2) evidence that a lack of bike lanes cause obesity (Specific), 3) evidence that too many fast-food restaurants cause obesity (Specific), 4) that the general/broad environment causes obesity (General). Policy support and obesity causal beliefs were assessed before and after the interventions.

Results: The general environment intervention did not increase support for either obesity policy (p = .862 & p = .685), as predicted. The fast-food intervention increased both the belief that fast food restaurants contribute to obesity (d = .20, p < .001) and support for restricting fast-food restaurants (d = .10, p = .001). The bike lanes intervention increased the belief that a lack of bike lanes contributes to obesity (d = .24, p = .001) but did not increase support for more bike lanes (d = .02, p = .325). The bike lanes intervention did not impact fast-food policy support (d = .04, p = .217) and the fast-food intervention did not impact bike lane policy support (d = .02, p = .538).

Conclusions and implications: This study provides some evidence that specific and corresponding causal beliefs do causally influence policy support, whereas specific and non-corresponding causal beliefs and general causal beliefs do not.

## Understanding the Role of the Value-Belief-Norm Theory in Shaping Support for Environmental Public Policies: A Systematic Review and Meta-Analysis

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Background: The urgency of global climate action has highlighted the importance of research on public support for environmental policies. The value-belief-norm theory of environmentalism offers a model for understanding psychological processes underlying pro-environmental policy support. A growing body of research has explored its applicability and prediction ability across diverse populations and contexts. This review aims to synthesise current evidence to examine the applicability of the value-belief-norm theory in shaping support for environmental public policies.

Methods: Systematic searches identified 23 eligible studies (n = 11,314) from 4082 screened abstracts that applied the value-belief-norm theory to predict support for environmental public policies. Correlations between the theory constructs and policy support were tested using random effects meta-analysis.

Results: Model-explained variance in policy support ranged from 2% to 72%, with substantial heterogeneity in the value-belief-norm theory application across studies. Policy support was positively associated with awareness of consequences (r = .37, p < .001, k = 10), ascription of responsibility (r = .39, p < .001, k = 6), proenvironmental personal norms (r = .36, p < .001, k = 8), ecological worldview (r = .28, p < .001, k = 9) and altruistic values (r = .13, p < .01, k = 2). However, the strongest correlations were between policy support and policy-specific beliefs, namely perceived fairness (r = .77, p < .001, k = 4) and effectiveness (r = .59, p < .001, k = 4), which are not part of the original value-belief-norm model.

Conclusions and implications: Although the value-belief-norm theory offers a useful framework for explaining policy support, its effectiveness varies largely across different contexts. Furthermore, constructs not included in value-belief-norm theory are frequently identified as better predictors.

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#### A2 - Cancer

"Never in my wildest expectations": The role of cancer expectations throughout the diagnostic pathway among people with a cancer signal detected in the NHS-Galleri Trial

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Background: Multi-cancer early-detection (MCED) blood tests look for cancer signals in blood and have the potential to screen for early-stage cancers. Understanding psychological responses to a 'cancer signal' result is vital prior to any future implementation. We explored how people responded to their results in a clinical trial context.

Methods: A subset of 41 participants in the NHS-Galleri trial (NCT05611632), with a 'cancer signal' detected, were interviewed 6-months after their result. We purposefully selected 20 participants who self-reported a cancer diagnosis and 21 who reported no cancer was found after further tests. Transcripts were analysed using Reflexive Thematic Analysis.

Results: Participants described their experiences from results to diagnostic resolution. Expectations of cancer played a pivotal role in emotional reactions, cognitive responses and social interactions and were influenced by participants' experiences of health and symptoms. While the cancer signal was often unexpected, the predicted cancer signal origin made sense when consistent with family history or health issues related to that organ/tissue. During the period of diagnostic uncertainty, views of healthiness or lack of family history were sometimes used to self-reassure. Those who anticipated a possible cancer diagnosis sometimes experienced intrusive thoughts, impacting sleep and life. Others described being 'matter of fact' and not worrying about a possible cancer outcome. For some, a cancer diagnosis was unexpected; for others, expectations of cancer had gradually increased, making it less shocking. For those who had not had a cancer found (at time of interview), the belief that cancer could still be present impacted their sense of reassurance. Questions about the meaning of a 'false-positive' were dominated by future cancer risk.

Conclusions and implications: If MCED screening is implemented, many people will need further investigation. Supporting information about the meaning of a cancer signal will be vital for minimising adverse psychological impact during this period.

Exploring factors related to access to and uptake of lung cancer screening with a focus on health inequity: professional stakeholders' views

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Background: In England, since 2019, the Targeted Lung Health Check (TLHC) programme has been rolled out in the most deprived areas to screen eligible individuals (based on age and smoking history) for lung cancer. At the same time, lung cancer risk factors such as smoking and low socioeconomic status are associated with reduced screening participation. Furthermore, evidence from other cancer screening programmes report barriers to uptake for individuals living with chronic health conditions and disabilities. This study explores

professionals' views regarding perceived factors related to access to and uptake of lung cancer screening, with a focus on health inequity.

Methods: Individual semi-structured interviews were conducted with professionals (n=21) involved in the setup, implementation or delivery of TLHCs across England. Data collection took place between May and August 2024. Data was analysed inductively using reflexive thematic analysis.

Results: Professionals' views centred on three themes. Theme 1 - Identification of target population(s) and their uptake of TLHCs - related to decision-making around individuals' fitness to participate, accuracy of primary care record data informing screening invitation and the ability to monitor population uptake. Theme 2 - Strengthening awareness and understanding of lung cancer screening - related to increasing visibility, emphasising the importance of programme adherence, and clarifying professional responsibility in the management of findings. Theme 3 – Current equitability of the TLHC programme - related to the diversity in service design and delivery, and the understanding of and capacity to implement reasonable adjustments in practice.

Conclusions and Implications: Whilst lung cancer screening is welcomed, several barriers may exist at the set-up and delivery phase with implications for programme uptake and equity. Identifying priorities regarding health inequalities within lung cancer screening is important to ensure standardisation, minimise geographical variation and prioritise equity of access as the TLHC programme is rolled out nationally by 2030.

Short-term results from the PAC-WOMAN randomized controlled trial on quality of life and related psychological outcomes in breast cancer survivors on aromatase inhibitors

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Background: Women diagnosed with hormone-receptor positive breast cancer often receive aromatase inhibitor (AI) hormonal therapy, but experience several detrimental side effects. Physical activity (PA) decreases these adverse effects and is able to improve quality of life (QoL) and related psychological outcomes. The PAC-WOMAN trial was designed to test the effects of different types of PA interventions (structured exercise vs theory-based brief counseling). This study investigated their short-term impact on QoL and several psychological outcomes in women on AI therapy participating in the PAC Woman trial.

Methods: A total of 110 women on AI (age: 56.1±7.6 yr; BMI: 28.1±5.9 kg/m2; AI length: 23.4±20.1 months) were randomly allocated to a brief PA counseling group (PAC), a structured exercise group (ExG), or a waitlist control (CG). A psychometric battery of questionnaires was employed to assess QoL (EORTC QLQ-C30, BR23), psychological well-being (indicators of life satisfaction, purpose, life's worth), depression (HASDS), body image (BIS), and subjective pain (BPI, PDI). Repeated measures Anovas, adjusting for covariates, were conducted.

Results: Global health status increased in ExG over time (p=0.013). ExG showed higher physical function than CG (p=0.012) and lower subjective pain than PAC post-intervention (p=0.008). Breast symptoms (p=0.004) improved in PAC from pre- to post-intervention. Both ExG and PAC showing higher future perspectives' scores than CG post-intervention (p<0.05). Life satisfaction increased (p=0.005) and depression decreased

(p=0.019) in PAC. Significant group\*time interactions were found for body image (p=0.036), with observed improvements in PAC (p<0.001) and ExG (p=0.041).

Conclusions & Implications: These findings suggest that two different PA promotion interventions (i.e., structured exercise and brief PA counseling) can lead to improvements in quality of life and related psychological outcomes in women undergoing AI therapy. Future research should explore how and for whom PAC-WOMAN's effects might be more marked.

Funding: Fundação para a Ciência e Tecnologia (PTDC/SAU-DES/2865/2020)

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Applying the Behaviour Change Wheel to develop an intervention toolkit to inform Black women about breast cancer in ante and post-natal settings: A co-production approach with Black breast cancer survivors, community members, and midwives

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Background: Women of Black African/Caribbean heritage in the UK are more likely to develop breast cancer at an early age, be diagnosed with advanced breast cancer, and have lower survival than White British women. Culturally acceptable interventions are needed to encourage timely symptomatic presentation. Using the Behaviour Change Wheel stages of intervention development, we developed guidelines for an intervention toolkit to be delivered in ante-/post-natal settings so as to target women not yet eligible for breast screening.

Method: Four co-production sessions with fourteen women: 4 with a history of breast cancer, 5, without, and 5 healthcare professionals (4 midwives and 1 public health apprentice). The participants identified as: Black African (n=6), Black Caribbean (n=5), White & Black African (n=1), White & Black Caribbean (n=1), and Asian (n=1). One patient representative of White & Black African heritage helped facilitate the sessions. The data were analysed deductively using Template Analysis and the themes were mapped onto the BCW stages and steps of intervention development.

Results: The participants agreed that ante/post-natal appointments offer an opportunity to learn about breast health, and that the key behaviour to address is timely help-seeking for breast changes indicative of breast cancer. It was agreed the intervention should have three main functions: education, i.e. increase Black women's knowledge of breast cancer symptoms (psychological capability), training, i.e. teach breast self-checks (physical capability), and persuasion, i.e. convince that a breast cancer diagnosis is not a death sentence and increase intentions to seek timely help (reflective motivation).

Conclusions and implications: Delivering breast cancer education in ante-/post-natal settings was seen as acceptable and feasible by Black breast cancer survivors, Black community members, and midwives. Further feasibility and acceptability testing is needed. In this presentation we will detail how we combined the BCW with the co-production approach to develop the intervention guidelines.

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## ❖ Mixed-methods evaluation of a co-designed peer-led intervention to tackle barriers to early diagnosis of PROstate CANcer for Black men in North-East England and Scotland-the PROCAN-B study

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Background: Prostate cancer is the most common cancer among men in the UK, accounting for 27% of all cancers in males. Black men have double the chance of getting prostate cancer and dying from it compared to White men, yet only 25% know their elevated risk. We co-designed with 13 Black men an intervention to increase awareness and promote early diagnosis in North-East England and Scotland. The peer-led intervention, underpinned by the Integrated Screening Action Model (I-SAM), consisted of multiple components, including GP health education, and videos with testimonials from survivors, women, and religious leaders.

Methods: This mixed-method pilot study, recruited 62 Black African and Caribbean men, aged 42-63, using purposive and snowball sampling. The intervention was first delivered with 21 participants in November 2023, followed by two focus groups (n=14) to obtain qualitative evaluation. Based on feedback, the intervention was revised and delivered again with 41 participants in February 2024, and also evaluated through two focus groups (n=26). Thematic analysis was used. Knowledge, attitudes and intention to engage in prostate cancer testing were examined through a pre-and post-survey design (n=41). Wilcoxon Signed Rank Tests were used to assess pre-and post-intervention scores.

Results: Focus group data showed participants enjoyed the intervention and found it informative. They particularly liked that the intervention was delivered exclusively by individuals who shared participants' cultural and racial backgrounds. Participants reported that the intervention increased their confidence in engaging with healthcare providers to discuss prostate health testing. Knowledge (Z = 4.939, p < 0.001) and intention to undergo prostate cancer testing (Z = 3.975, p < 0.001) significantly increased post-intervention.

Conclusion: The intervention shows potential to increase awareness and build confidence to engage in behaviours conducive to early diagnosis. However, the sample was small and effectiveness testing will need to be conducted more robustly.

❖ Assessing multidimensional fidelity in a pilot optimisation trial: a process evaluation of four intervention components supporting medication adherence in women with breast cancer

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Background: Adjuvant endocrine therapy (AET) reduces breast cancer mortality, but adherence is low. In a pilot optimisation trial, we tested four intervention components supporting medication adherence, in the preparation phase of the multiphase optimisation strategy. Fidelity assessment often focuses on intervention delivery, neglecting receipt, understanding and engagement. Guided by the National Institute of Health Behaviour Change Consortium framework, we investigated fidelity of design, training, delivery, receipt, and enactment of four intervention components in a mixed-methods process evaluation.

Methods: In a 2^4-1 fractional factorial pilot optimisation trial, women with stage I-IIIa breast cancer prescribed AET (n=52) were randomised to one of eight experimental conditions, comprising different combinations of the intervention components (text messages, information leaflet, acceptance and commitment therapy [ACT], side-effect website). Fidelity was assessed through behaviour change technique (BCT) coding (design); ACT therapist competency assessments (training); confirmation of component delivery (delivery); self-reported data on receipt and engagement, ACT session attendance and website usage (receipt); and interviews with participants (n=20; receipt and enactment) and therapists (n=6; training and delivery). Quantitative data were summarised, and rapid qualitative analysis was used for interview data.

Results: Design: Each intervention component targeted unique BCTs. Training: All ten therapists passed the competency assessment. Delivery: All leaflets (27/27) and website details (26/26) were sent, and ACT procedural fidelity was high (85.1% to 94.3%). A median of 32.5/41 (range 11 to 41) text messages were delivered, but a system error prevented some messages being sent to 22/28 participants. Receipt: Most participants (63.0% [ACT, leaflet] to 71.4% [text messages]) read all or some of the intervention components they were randomised to receive. Enactment was most positive for ACT.

Conclusions and implications: All intervention components demonstrated adequate fidelity. We have demonstrated a useful approach to comprehensively assess multidimensional fidelity which has informed improvements ahead of an optimisation randomised controlled trial.

#### A3 - Medicines Optimisation

Effect of a Cognitive Intervention Based on the Necessity-Concerns Framework on HIV Treatment Adherence and Outcomes in Jos, Nigeria

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Background: Medication non-adherence is common in people living with the Human Immunodeficiency Virus (PLWH), usually leading to negative health outcomes. The Necessity-Concerns Framework (NCF) explains how adherence is influenced by the patient's belief in their personal need for the treatment (Necessity beliefs) and any concerns about their medicines. This study determined the effect of a cognitive intervention designed from the NCF on HIV treatment adherence and outcomes in Jos, Nigeria.

Methods: The study was done in two tertiary hospitals in Jos, Nigeria. After obtaining ethical approval, data were collected at baseline and at least 6-month follow-up from 351 adults (>18 years) PLWH receiving antiretrovirals, (ARVs) for six months or longer. They were recruited randomly into control and intervention groups as they came to the health facilities. The Standard Morisky Scale was used to measure adherence. The control group received routine adherence counselling, while the intervention group in addition received a cognitive intervention involving reinforced medication education and adherence counseling (MEAC) based on the NCF. Paired T and Mann Whitney U tests were done to determine the effect of the intervention on knowledge, treatment adherence, and outcomes between the groups.

Results: Most of the respondents were females (77.5%), within the age range of 35-54 years (68.7%), with secondary level of education (39.6%), and >five years of enrolment (72%). Medication adherence rate (89%) was the same between groups and did not significantly change post-intervention. A significant (p<0.01) increase in CD4 count, mean knowledge score and beliefs about ARV medicines was observed in the intervention group compared to the control group.

Conclusions and implications: The cognitive intervention designed from the Necessity-Concerns framework improved CD4 count, patient disease knowledge and belief about medicines. Psychological health interventions should therefore be designed and implemented to improve treatment adherence and outcomes.

Supporting women through treatment adherence and potential weight-gain related to Cystic Fibrosis (CF) medication

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Background: Kaftrio™, a triple combination modulator therapy, licensed in 2020, revolutionised the treatment of cystic fibrosis (CF). However, it can cause weight gain and concerns have been raised about the potential for poor adherence due to this, particularly in women. This study investigated the experiences of women with CF aged 22 to 56 years, who were prescribed Kaftrio™ medication and its impact on adherence and eating behaviours.

Methods: Experiences of five women with CF were captured qualitatively using semi-structured interviews. Data were audio-recorded, transcribed verbatim, and analysed applying framework analysis based on the

COM-B model (Capability, Opportunity, Motivation - Behaviour) of behaviour to identify key components to target as part of an intervention.

Results: Six themes emerged, which were deductively mapped to the COM-B model. Dominant components of eating behaviours were Social Opportunity, Automatic and Reflective Motivation. Components relating to medication adherence included Physical and Psychological Capability, Social Opportunity, and Reflective Motivation. No other themes were observed in the data. Key COM-B components were subsequently mapped to the Behaviour Change Wheel and Behaviour Change Techniques (BCT) Taxonomy (v1) to inform the intervention functions.

Conclusions and Implications: The COM-B model identified important elements relating to patient experiences of adhering to Kaftrio™ medication and managing potential weight gain. Participants provided insights into the internal conflict in terms of the perceived benefits and perceived negative consequences of this new treatment. These findings will be used to inform the co-design of a multi-disciplinary intervention to support women with CF in Wales, to manage potential weight gain due to Kaftrio™ medication.

# Co-producing recommendations for optimising the design, delivery, and evaluation of Antimicrobial Stewardship education and training

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Background: Antimicrobial stewardship (AMS) is a system-wide approach to tackling the threat of antimicrobial resistance through promotion and monitoring of antimicrobial use. A crucial component is the delivery of effective education and training for healthcare providers, and whilst this is often implemented across the UK it is not consistently reported or evaluated. Informed by our previous work which synthesised evidence on published AMS education and training and analysed current AMS education and training in UK hospitals, this study aimed to co-develop recommendations for enhancing AMS education and training in this setting.

Methods: Following triangulation of our findings from two completed work packages and existing evidence we identified "missed opportunities" (i.e., influences not currently targeted). These findings were presented at a full-day hybrid workshop attended by 24 stakeholders, including staff (research, policy, and practice) and patient representatives. Facilitated group discussions were used to identify how best to address the gaps within the context of AMS education and training. Discussions were captured through notes and audio recordings and analysed thematically. Nominal Group Technique was employed to agree on key outcomes for evaluating such education and training.

#### Results:

Five priority areas were identified for improving AMS education and training:

- 1. increasing patient involvement
- 2. addressing team culture, dynamics and hierarchies
- 3. providing localised audit and feedback
- 4. ddressing fear and managing uncertainty
- 5. facilitating implementation by addressing organisational barriers. Consensus was reached on 11 evaluation outcomes which included clinical practice (e.g. antimicrobial consumption), process (e.g. uptake, confidence) and patient experience (e.g. patient centredness/inclusion) outcomes.

Findings were consolidated into a framework outlining key outcomes for evaluating AMS education and training.

Conclusions and Implications: Our findings offer concrete suggestions for optimising the design, content, and evaluation of AMS education and training, representing potential intervention strategies that could be piloted and evaluated in future trials.

## Adapting the Antibiotic Review Kit (ARK) intervention to support wider, sustainable implementation in hospitals

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Background: Hospital-based antimicrobial stewardship initiatives, such as 'Start Smart, Then Focus', encourage prescribers to review and revise antibiotic prescriptions after 48-72 hours to reduce unnecessary antimicrobial use safely. The Antibiotic Review Kit (ARK), a multifaceted behaviour change 'tool-kit' supporting hospital-based healthcare professionals (HCPs) to do this, significantly reduced overall antibiotic use in acute/general medical inpatients without impacting clinical outcomes. The ARK 'tool-kit' needs updating to reflect contextual changes since its development, particularly electronic prescribing, and adapting to allow upscaling across all NHS specialities and sustained implementation. This study aimed to co-produce ARK 'tool-kit' adaptations with key stakeholders.

Methods: Using a person-based approach (PBA), we engaged HCPs and Patient and Public Involvement (PPI) representatives in iterative consultations to co-adapt ARK; including online interviews, two workshops and two surveys. Issues and suggestions were collated in a Table of Changes. Once content has been adapted, further insights will be gained from HCPs and patients using in-depth qualitative "think-aloud" interviews, particularly recruiting those in underserved communities and wider medical/surgical specialities.

Results: Stakeholders highlighted lack of understanding of the ARK Decision Aid terminology, particularly without ARK training, as a key barrier to engagement. HCPs expressed the need for guidance on integrating the ARK Decision Aid into electronic prescribing systems. Additional recommendations included adapting content to reflect the growing range of prescribers, enabling electronic dissemination of the patient leaflet and translating it into other languages to support patient safety-netting. Stakeholders recommended short, multimedia approaches to delivering ARK implementation guidance, resources and online training to enhance engagement.

Conclusions and implications: This iterative process elicited valuable insights for optimising the ARK 'tool-kit'. Key adaptations, such as clarifying terminology, incorporating multimedia resources, and integrating the 'tool-kit' into electronic prescribing systems, should better align ARK with current clinical needs, supporting enhanced engagement and sustained implementation.

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Chemical adherence testing for assessing adherence to antihypertensive medications: a systematic review and meta-analysis of prevalence of nonadherence

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Background: Nonadherence to antihypertensive medications is a widespread issue that significantly increases cardiovascular risk. Sociodemographic factors, including age, sex ethnicity and deprivation, may influence adherence in hypertension. Chemical adherence testing (CAT) is an objective measure used to confirm medication intake by detecting the presence of prescribed drugs or their metabolites in bodily fluids. However, it is unclear if its use to date has been equitable. This review aims to identify the demographic groups with hypertension in which CAT has been used previously, and to estimate the prevalence of nonadherence.

Methods: Multiple databases were searched from 2013 to February 2024. Published papers that reported CAT data in people with hypertension were included. Data extraction included: study design and setting, hypertension definition and type, participant sociodemographic factors, and prevalence of nonadherence. Prevalences were pooled using random-effects meta-analyses. Between-study heterogeneity was explored with meta-regression analyses.

Results: Seventy eligible papers were identified. Most papers did not present key participant sociodemographic data, including ethnicity (42/70), socioeconomic (64/70), educational (67/70) or disability status (70/70). The estimated prevalence of complete medication nonadherence was 15% (95%CI: 12-19), increasing to 33% (95%CI: 29-38) when estimating prevalence of complete and partial nonadherence. Nonadherent patients had higher blood pressure (158.8/88.0 vs 168.0/96.2mmHg) and were prescribed a greater number of antihypertensive medications (3.9±1.2 vs 3.2±1.2) than adherent patients, whilst participant age showed an inverse relationship with nonadherence prevalence (p=.002).

Conclusions and Implications: Prevalence of nonadherence to antihypertensive medications identified by CAT is high and is associated with a higher number of prescribed medications and higher blood pressure. Key relevant sociodemographic factors were often not reported, limiting the understanding of CAT use in diverse populations. In order to support behaviour change interventions to address medication nonadherence in underserved groups, future research should recruit diverse populations to inform equitable implementation.

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#### A4 - Novel Methods

Exploring the acceptability and feasibility of The School Health Research Network (SHRN) School Level Data Dashboard for Children and Young People's Health and Well-being data in schools

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Background: Schools are expected to utilise evidence to address student health and well-being. However, they face barriers including workload burden on school staff and data literacy. National data infrastructures like The School Health Research Network (SHRN), provide school-level Student Health and Well-being Reports to inform health improvement actions. SHRN are eager to optimise data sharing with schools. The SHRN School Level Data Dashboard (from now on referred to as The Dashboard) was co-developed to support schools using their student health and wellbeing report data.

Methods: The Dashboard was piloted with four schools, purposively sampled for contextual diversity (size; free school meal entitlement) in Wales, UK. Eighteen interviews with school staff and five interviews with regional school health and wellbeing practitioners were conducted. Interviews were subjected to thematic analysis.

Results: Themes related to schools current use of data and the acceptability and feasibility of The Dashboard. This included how school staff perceived themselves to have access to ample formal and informal health and wellbeing data but have limited time and capacity to use it. The Dashboard was perceived as a user-friendly method of enhancing SHRN data accessibility and improving data extraction. Concerns were highlighted regarding potential for misinterpretation of data. Staff also discussed the sustainability of The Dashboard and its interaction and place within the wider education system.

Conclusions: School staff and regional school health and wellbeing practitioners found The Dashboard an acceptable and feasible alternative to current data utilisation processes due to its user-friendly design and perceived ability to enhance data-informed practices in schools.

Implications: The Dashboard could be used to support health and wellbeing data use in schools and to increase data literacy of school staff. Future research should explore the impact of The Dashboard on schools and wider education partners across Wales.

Developing films to support vaccine-hesitant, ethnically diverse parents' decision-making about the human papillomavirus (HPV) vaccine: A co-design study

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Background: Uptake of the English schools-based human papillomavirus (HPV) vaccination programme has decreased in recent years, and is especially low among young people from minority ethnic groups. Addressing

vaccine-hesitant parents' information needs may support positive HPV vaccine decision-making and improve uptake.

This study illustrates an evidence-, theory- and person-based approach to co-design the COMMUNICATE films that support parental decision-making about the HPV vaccine for their teenagers.

Methods: The intervention planning phase involved combining evidence from a literature review with qualitative interview data to identify barriers and facilitators to HPV vaccine uptake, as well as design features that should be incorporated within the films. The intervention development phase involved identifying guiding principles, mapping behaviour change techniques, and co-designing the COMMUNICATE films. Feedback from users informed modifications to maximise acceptability and feasibility, and to support behaviour change.

Results: The primary and secondary evidence highlighted important content to include: emphasise the benefits of the HPV vaccine, provide transparent information about the safety profile and side-effects, and emphasise the universality and commonality of HPV infection. A series of scripts were used to guide four film shoots to create the content in multiple community languages with 16 participants, including vaccine-hesitant, ethnically diverse parents and professionals. Overall, participants were positive. Potential messengers and ways the films could be distributed, identified by parents, include local social media networks or text messages from general practices. The need for information about the HPV vaccine to be shared by schools ahead of consent being sought was also raised.

Conclusions and implications: By using an integrated approach to intervention development, this study has begun to address the need for an intervention to support vaccine-hesitant, ethnically diverse parents' decision-making about the HPV vaccination programme. A further study to co-design, implement, and evaluate a communication strategy for the COMMUNICATE films is currently underway.

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## Co-production: beyond the buzzword – a tested model to design inclusive, effective behaviour change interventions built on lived-experience

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Background: Co-production has become a popular concept in behavioural science and behavioural medicine, as a way to involve different stakeholders and groups in the planning and designing of effective interventions. However, the lack of a single definition of co-production can lead to different interpretations. As a result, the term co-production is often (mis)used to describe other types of community involvement and engagement, such as extractive and unilateral insight gathering and partnership working activities.

Methods: We have developed and tested a five-step framework for stakeholders working with co-production and insight gathering, based on relationship-building, meaningful engagement and inclusivity. Our framework was developed to help thinking of co-production at scale.

Results: Our CO-LAB framework - Clarify, Onboard, Listen, Adapt, and Build — defines and sets-up the process for people to contribute authentically towards creating interventions that are more relevant and impactful, and truly represent the lived experience of those involved. From defining unique contributions, to implementing tailored activities, feedback loops, and ways of working. A key feature of this framework is its definition and integration of three experience types: Technical (specialised knowledge on behaviour change methodologies), Professional (domain-specific client insights), and Personal (lived experiences of target audiences). We have used the CO-LAB to co-produce several behaviour change campaigns and interventions to drive engagement with health care systems.

Conclusions: This model was developed so interventions are designed from a holistic understanding of the problem space, budget constraints, and time considerations, making the approach adaptable and accessible to a wide range of populations and stakeholders. Our presentation will explore the development, implementation, and successes of this framework in various settings, as well as the challenges within its implementation. We are hoping to share insights into this replicable approach to co-production that aims at including and aligning different experiences in developing sustainable behaviour change campaigns.

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## Exploring Consultation Exercises for Knowledge User Involvement in Scoping Reviews: A qualitative interview study

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Background: Scoping reviews have exploded in popularity in health and behavioural medicine literature. Consultation exercises (CEs) involving knowledge users (KUs) (e.g., policymakers, patients and healthcare professionals) are a recommended step in scoping reviews. However, CEs are not routinely done and there has been limited exploration of their value and the factors influencing their use. This study aimed to explore the views and experiences of scoping review authors regarding KU CEs within scoping reviews.

Methods: We conducted qualitative interviews with scoping review authors who had previously conducted a CE within their review. We analysed the data using reflexive thematic analysis.

Results: We conducted 15 interviews with 16 authors from six countries. We identified three main themes; 'Deciding to do a Consultation Exercise', 'The Who, When and How of Consultation Exercises in Scoping Reviews', and 'Fostering Growth: Reflections on Lessons Learned and Future Steps'.

In the first theme, factors influencing participants' decisions to include CEs were logistical (eg time, resources), the nature of the review question and perceived benefits for answering that question, and previous experiences with CEs.

In the second theme, participants described a variety of approaches for conducting CEs. This included informal individual conversations, collaborative documents or formalised focus groups conducted at varying stages, e.g. interwoven throughout the review, or one-off consultations at the end.

In the third theme, participants felt that CEs helped to identify relevant literature, provide additional insights not available within the literature, and improve impact. They also felt that step-by-step guidance regarding factors to consider when conducting CEs within scoping reviews was needed and that further work was needed to ensure inclusivity.

Conclusions/implications: CEs are a valuable way of involving KUs in scoping reviews. These findings can help improve KU involvement in scoping reviews, thus maximizing the potential impact of behavioural medicine research for all patients/KUs.

#### **❖** ASSIST Global: challenges and reflections on a cross-country qualitative study

<u>Dr Amanda Vettini</u><sup>1</sup>, Prof Sharon Simpson<sup>1</sup>, Prof Laurence Moore<sup>1</sup>, Dr Kate Reid<sup>1</sup>, Dr Emily Long<sup>1</sup>, Dr Sean Semple<sup>2</sup>, Dr Meigan Thomson<sup>1</sup>, Prof Yayi Suryo Prabandari<sup>3</sup>, Dr Retna Siwi Padmawati<sup>3</sup>, Dr Maria Guadalupe Salanga<sup>4</sup>, Dr Nino Jose Mateo<sup>4</sup>, Dr Yin Nwe Soe<sup>1</sup>

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Background: ASSIST is a school-based, peer-led smoking prevention intervention developed in the UK with influential students ('peer supporters') selected by classmates to spread anti-smoking messages. The ASSIST Global trial tested the intervention in Indonesia and the Philippines. The qualitative work is part of the trial process evaluation assessing trial methods and intervention acceptability and feasibility. We report methodological and logistical challenges of multi-country research, proposing a process to address these challenges.

Methods: Semi-structured interview (n=40) and focus group (n=18) data were gathered from peer supporters, non-peer supporters, ASSIST trainers, teachers and parents across 10 schools per country. The UK team delivered analysis training and developed an initial deductive coding frame based on study aims and research questions. All teams analysed five translated transcriptions across participant groups per country discussing coding at joint coding meetings and agreeing a final coding frame ensuring that key cultural context and meaning were not overlooked. Using the revised coding frame we double-coded 20% of 58 English-translated transcriptions per country, each country additionally double-coded 20% of mother-tongue transcriptions. We generated and summarised framework matrices then interpreted data drawing out core aim-relevant themes. Key challenges experienced included: requirement for repeated coding meetings per country, transcription complete recoding necessitated by coding frame changes, understanding cultural and contextual meanings and translation quality control issues. Transcriptions needed coded at least twice, once documenting researcher coding decisions and again for participant meaning. Some also required full recoding following revised translations, resulting in individual transcriptions being completely recoded up to three times.

Conclusion and implications: Time required for robust generation of finalised coding frames and data recoding is substantial. Cross-country, complex research studies present particular challenges for researchers working across teams to ensure robust qualitative research and analytical consistency, whilst preserving salience of local and cultural contexts and meanings.

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#### A5 - Multi-topic 5 in 5 presentations

❖ What is known about the determinants of developing antipsychotic-induced metabolic syndrome and interventions to address them for community-dwelling adults: A scoping review

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Background: Antipsychotics are effective at treating severe mental illness but cause metabolic side effects (MSEs) including weight gain, hyperglycaemia and hypercholesterolaemia, leading to morbidity and premature mortality. MSEs develop through physiological mechanisms, e.g., plasma glucose dysregulation, and through behaviour changes, e.g., increased calorie intake and sedentary lifestyle. This scoping review aimed to synthesise evidence regarding modifiable and non-modifiable determinants of developing MSEs, non-pharmacological interventions to treat MSEs, and patients' preferred context of delivery of interventions.

Methods: Databases including MEDLINE, CINAHL, and APA PsychInfo were searched. Articles were screened, and data relating to the aim were extracted and charted. A narrative synthesis was performed to 'tell the story' of the extracted data.

Results: Eighty-seven articles were included. Sex, younger and older age, Black, Caucasian, and Hispanic ethnicities, high and low baseline BMI, and presence of negative psychosis symptoms were reported non-modifiable determinants of developing MSEs. Changes in eating and physical activity behaviours were associated with developing MSEs. Modifiable determinants including low motivation, low self-esteem, and perceptions about capabilities to lose weight were reported determinants of these behaviours. Non-pharmacological interventions reported varying success. Patients' preferred context included facilitators delivering the intervention matched to patients by gender and age, and interventions delivered in community settings.

Conclusions and implications: Non-modifiable determinants provide clarity about who is at highest risk of developing MSEs. Further understanding is required about modifiable determinants associated with behaviour changes prompted by antipsychotics, and which determinants need to be targeted with interventions. Further understanding is needed about why some non-pharmacological interventions are successful but others are not. Context is important in intervention delivery but there is a substantial gap in knowledge regarding patients' preferred context. Interventions should be developed in partnership with patients to ensure preferred context of delivery is implemented.

### \* "Guilt and shame": The impact of parenting with Premenstrual Dysphoric Disorder

<u>Dr Lynsay Matthews</u><sup>1</sup>, Dr Conny Gollek<sup>1</sup>, Dr Joanne Ingram<sup>1</sup>, Dr Eileen Harkess-Murphy<sup>1</sup>, Dr Catriona Fallow<sup>1</sup>
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Background: Premenstrual Dysphoric Disorder (PMDD) is a severe hormone-based mood disorder that causes debilitating psychological symptoms in the luteal phase of the menstrual cycle. The UK PMDD research agenda highlights the wider impact of PMDD on life as a research priority. One area identified by stakeholders was the impact on parenting and early years development of children. This aligns with the priorities of the UK, Scottish Government and Welsh Government's Women's Health strategies, however, has not been addressed by any previous research. The aim of our study was to explore the impact PMDD has on mothers and their children, and identify research questions to be addressed.

Methods: Three methods were employed, including: (1) three creative arts-based workshops with eight mothers with PMDD to co-produce research areas; (2) qualitative semi-structured interviews with the same 8 mothers, analysed using thematic analysis; and (3) a co-produced online survey to explore the impact of impaired cognition on parenting while living with PMDD.

Results: The workshops highlighted strong themes of suicidality, and feelings of guilt and shame while parenting. Mothers described isolating themselves while symptomatic for fear of harming their children (physically or emotionally), leading to inconsistent parenting and fears of how this impacted their children's wellbeing. They described the dismissal and exhaustion of trying to obtain a diagnosis, which led them to avoid seeking further support for fear of being judged by others such as schools or other services. Findings from our interview and survey phase will be ready for March 2025.

Conclusion and implications: PMDD has a detrimental impact on parenting behaviours and potentially may impact the health behaviour of children. Our research highlights initial priorities to take forward, with the potential to inform policy and practice in relation to multiple services including: health; early years education; parenting support; welfare system; and more.

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## ❖ A systematic review of behaviour change techniques associated with effectiveness in digital interventions for reducing alcohol consumption

<u>Sarah Wilkie</u><sup>1</sup>, Prof Leah Avery, Dr Christin Hoffmann, Finlay Schofield, Dr Jon Bird, Prof Angela Attwood <sup>1</sup>University Of Bristol

Background: Increased alcohol consumption is linked to an increased risk of injury, disease, and several cancers. Digital interventions have been shown to be effective for reducing alcohol consumption, but they do not always describe which components, techniques, or 'active ingredients' make the intervention effective. Previous systematic reviews have determined the effectiveness of digital interventions to reduce alcohol consumption, and the associated behaviour change techniques (BCTs); however, these analyses fell short of examining the computer science literature for potential use of BCTs in digital intervention development.

Methods: The current review extends on these previous studies and provides a more extensive, up-to-date review of the literature, as well as determining whether digital interventions are effective in promoting behaviour change, and which BCTs are associated with effectiveness. The aim of this review is a) identify which BCTs are associated in reducing alcohol consumption for hazardous drinkers, b) determine whether BCTs are associated with modifying behaviour indirectly via changes in self-efficacy, motivation, intentions, awareness and/or knowledge, c) examine whether any BCTs are linked with attrition or risk of bias and/or harm, and d) examine whether different BCTs have different effects for different sub-groups.

Results: The main analysis extracted 7,474 articles from the health and computer science literature (12,722 before removal of duplicates) and reduced this to 333 articles via title and abstract screening. A full text screen reduced the total to 65 articles from which data is currently being extracted to complete a meta-regression and sub-group analysis.

Conclusions & implications: The review provides an update of behaviour change techniques currently used in digital interventions for reducing alcohol consumption. It also provides an overview of the adoption of these techniques in the wider literature outside the health and psychological sciences and recommendations for how these can be implemented more widely.

Understanding socioeconomic differences in the consumption of alcohol-free and low-alcohol (no/lo) drinks: is the reason we drink alcohol important? Results from a cross-sectional study of British adult alcohol drinkers

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Background: One fifth of adults in Britain who drink alcohol, also regularly consume alcohol-free and low-alcohol drinks (no/lo, ≤1.2% ABV). Consumption of no/lo drinks is more common amongst the socially advantaged. If these drinks are consumed instead of standard alcoholic drinks this may exacerbate alcohol-related health inequalities.

Different socioeconomic groups drink alcohol for different reasons. Less socially advantaged groups are more likely to drink alcohol to cope with depression.

The aim of this study was to explore whether alcohol drinking motives mediate relationships between sociodemographic characteristics and no/lo consumption. We were particularly interested in understanding the relationship between socioeconomic status, drinking to cope with depression, and no/lo consumption.

Methods: A nationally representative sample of British adults (n=2555, recruited from the Alcohol Toolkit Study), provided data on: no/lo consumption, hazardous drinking, alcohol drinking motives, social grade, education, age and sex. Path analysis explored whether alcohol drinking motives mediated relationships between sociodemographic variables, hazardous drinking, and no/lo consumption.

Results: Those who were more educated, and respondents who reported more hazardous drinking were more likely to report drinking no/lo at least monthly. Drinking to cope with depression mediated the relationship between social grade and no/lo via hazardous drinking. The relationship between hazardous drinking and no/lo was suppressed for those drinking alcohol for this reason.

Conclusions and Implications: Heavier drinkers who drink to cope with depression appear less likely to drink no/lo regularly than those who do not. This could be important given the financial climate and the cost-of-living crisis's impact on mental health.

# Exploring Barriers and Facilitators of Physical Activity Engagement and Wider Lifestyle Impacts for Individuals living with Endometriosis: A COM-B Grounded Qualitative Study

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<u>Kate Day</u><sup>1</sup>, Ms Ellie Gadson Baybutt<sup>1</sup>, Savannah Sturridge<sup>1</sup> <sup>1</sup>University Of Kent, Canterbury, UK

Background: Endometriosis, is a disease of endometrium resembling tissue elsewhere in the body. Causes inflammation, and painful chronic physical and psychological symptoms. Symptoms can impact incidental and intentional physical activity (PA) engagement, a protective health behaviour from comorbidities. There are research gaps on wider psycho-social behavioural impacts of living with endometriosis which has no current cure and often results in unmanaged symptoms for extended periods. This study explores knowledge gaps in wider challenges maintaining health behaviours and PA with endometriosis.

Method: Semi-structured interviews mapped questions on endometriosis, and PA onto the COM-B model, an established behaviour model. Ethical approval; University of Kent LSSJ ethics.

A convenience sample of 17, recruited via social media and key stakeholders. Aged 22 to 47 years old (M=33) living with endometriosis, assigned female at birth, diagnosed and/or treated in the UK. Informed consent for cross-sectional, in-person interviews (n=2) and Microsoft Teams interviews (n=15). Otter.AI recorded and transcribed interviews. Researchers reviewed transcripts by line, generated codes and clustered meaningful themes following thematic analysis procedures utilising NVivo14 software.

Results: Thematic analysis identified five themes; 1) Systemic factors delaying diagnosis, 2) Individual symptom management disruptions, 3) Symptom unpredictability with competing demands PA barriers, 4) Post-diagnosis knowledge access and agency, and 5) PA social influences and identity reframing. Conclusions and Implications.

Multiple individual and societal factors impact individuals' PA engagement capability, opportunity and motivation. Key barriers were delayed awareness, diagnosis and symptom management pathways inhibited and de-prioritised PA. Access to relevant health information was a facilitator for individuals' PA agency, however, research gaps and limited plain English summaries impeded information access. A positive wider social influence on women's health and endometriosis advocacy was empowering.

Further research exploring wider psycho-social implications of living with endometriosis is essential to address nuances and provide informed, specific support in maintaining PA health behaviours.

Understanding the barriers and facilitators to accessing cervical screening for people with a physical disability, impairment, condition or difference

<u>Prof Susan Sherman</u><sup>1</sup>, Dr Emma Kemp<sup>1</sup>, Prof Julius Sim<sup>2</sup>, Prof Carolyn Chew-Graham<sup>2</sup>, Dr Andrew Finney<sup>2</sup>, Dr Charlotte Harper<sup>2</sup>, Dr Laura Marlow<sup>3</sup>, Samantha Renke<sup>4</sup>, Dr Katie Wright-Bevans<sup>2</sup>

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Background: Disabled people are more likely than non-Disabled people to have a delayed diagnosis of cervical cancer, due partly to lower screening uptake. Despite this and the fact that around 20% of the UK population has a disability, there has been little research to understand the barriers and facilitators to cervical screening in this population. The aim of this study was to investigate what problems and solutions (patient preferred terminology) to cervical screening for physically Disabled people.

Methods: One thousand UK-based participants took part in a cross-sectional online survey. Participants were aged 25-64 (M=41, SD=10.8) and were eligible for cervical screening, identified as having a physical Disability, condition, impairment or difference and had not had a total hysterectomy. Participants rated statements developed with patient and public involvement (PPI) stakeholders about screening-related problems and solutions and likelihood to attend future screening.

Results: The most endorsed problems were: worrying the test would be painful (83%), embarrassment (70%), fear of what the test may find (69%). Problems endorsed by non-Disabled people in previous research (Waller et al 2009) were all more frequently endorsed by our sample (all ps <.05). The most endorsed solutions were having a doctor/nurse try alternative solutions (89%), discuss specific needs (86%), show understanding of physical disability (82%). Additional solutions from open-ended responses included: offer of a pre-screening or debrief appointment, pain medication before/during/after screening, requesting a specific clinician to perform the test. A second wave of data collection is underway, complete analysis is due by March 2025.

Conclusion and implications: Problems previously reported by non-Disabled people are more frequently endorsed by Disabled people and additional disability-specific problems also exist. There are a range of

potential solutions which could address these problems, findings are anticipated to inform and update NICE guidelines on adjustments for physically Disabled people accessing cervical screening.

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## Process evaluation of the NAPSACC UK randomised controlled trial: an environmental nutrition and physical activity intervention in early childhood education and care settings in the UK

Dr Rebecca Langford<sup>1,2</sup>, **Jemima Cooper**<sup>1</sup>, Dr Stephanie Chambers<sup>3</sup>, Dr Kim Hannam<sup>1</sup>, Tom Reid<sup>1</sup>, Dr Madeleine Cochrane<sup>1</sup>, Prof Russel Jago<sup>1,2</sup>, Prof Sharon Simpson<sup>4</sup>, Prof Miranda Pallan<sup>5</sup>, Prof Ruth Kipping<sup>1</sup> <sup>1</sup>Bristol Medical School, University of Bristol, Bristol, UK, <sup>2</sup>National Institute for Health and Care Research Applied Research Collaboration West (NIHR ARC West), Bristol, UK, <sup>3</sup>School of Social and Political Sciences, University of Glasgow, UK, <sup>4</sup>MRC/CSO Social & Public Health Sciences Uni, University of Glasgow, Glasgow, UK, <sup>5</sup>Institute of Applied Health Research, University of Birmingham, Birmingham, UK

Background: Many children develop obesity during preschool years. Most also attend early childhood education care (ECEC) settings. ECECs provide opportunities to improve health through improved nutritional quality and physical activity for young children. There is evidence from the US that the NAPSACC intervention improves nutrition and physical activity in ECECs. We adapted NAPSACC for the UK and investigated its fidelity, acceptability and sustainability within a multi-centre trial.

Methods: Embedded process evaluation within a cluster randomised controlled trial with 52 ECECs (25 intervention and 27 control). The NAPSACC UK intervention comprised two six-month cycles of nutrition and activity self-assessment, staff workshops and goal setting, supported by public health practitioners. Data included: observations and questionnaires of training and workshop delivery; 11 interviews with practitioners who delivered the intervention, 11 ECEC managers, 5 commissioners, and two focus groups with the research team. Document analysis was undertaken of self-assessment and goal-setting forms. Analysis used deductive and inductive codes, a coding framework and triangulation across data sources.

Results: Three-quarters (76%) of intervention ECECs implemented the NAPSACC intervention across one cycle. Only 40% implemented a second cycle, mainly due to delays in scheduling staff workshops. ECEC managers valued opportunities to reflect on practice and the support offered by the practitioner. ECEC staff rated the workshops highly. 83% of nutrition and 70% of physical activity goals set by the ECECs were achieved (fully or partially) and self-assessment scores increased, with greater gains for ECECs implementing two cycles. ECEC managers planned to maintain the changes made but were mixed on whether they would continue self-assessment and goal-setting processes.

Conclusions and implications: Despite sector-wide staffing challenges, we saw high engagement from ECECs in self-assessment and goal-setting to improve child nutrition and activity. Potential roll-out of NAPSACC UK would benefit from tailoring activities and sustained support for practitioners and ECECs.

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### **B1 - Round Table: Menstrual health: the forgotten data in research**

Convenor: Dr Lynsay Matthews, University of the West of Scotland

Discussants: Dr Gemma Sharp<sup>1</sup>, Julie Riddell<sup>2</sup>, Dr Alison Bacon<sup>3</sup>, Dr Justine Anthony<sup>4</sup>

<sup>1</sup>University of Exeter, <sup>2</sup>University of Glasgow, <sup>3</sup>University of Plymouth, <sup>4</sup>University of Leicester

Purpose: To build on the 'menstrual health' momentum from the previous two UKSBM conferences, by bringing together discussants from five different universities and research experiences.

Objective: To provide an opportunity to discuss and problem-solve the priorities and challenges of including menstrual data in our research.

Rationale: Although menstruation is experienced by more than half of the global population, it remains an overlooked and under researched element of public health. Menstruation is considered a 'vital sign' for indicating physical disorders (e.g., anaemia)1 and mental disorders (e.g., Premenstrual Dysphoric Disorder (PMDD)2. Certain menstrual characteristic are also associated with mortality3, fertility4 and chronic conditions5. Health research, however, typically does not gather data on the menstrual cycle, such as a participant's phase of the menstrual cycle at time of data collection. This limits our understanding of the biological, environmental and sociocultural factors associated with menstruation and health.

#### **Discussants**

- Lynsay Matthews (convener) research explores Premenstrual Dysphoric Disorder (PMDD), a severe menstrual cycle related mood disorder with high rates of suicidality and self-harm. Alongside Julie Riddell, they co-produced the UK's first research agenda for PMDD.
- Gemma Sharp leads the 4M Consortium for research at the intersection of menstrual and mental health. It has grown from a local academic network to an active international consortium. Gemma will share insight from a recent study exploring the challenges of menstrual data in research.
- Julie Riddell won last years UKSBM highest scoring abstract award for her work on adapting the 'IVM model for suicide prevention' 6 for PMDD. Julie shared with the audience the importance of 'asking the right question' to identify issues related to menstrual hormone sensitivity. The post-talk engagement from attendees prompted the development of this roundtable opportunity.
- Alison Bacon is interested in psychological aspects of women's health and how responses to trauma can impact health throughout the lifespan.
- Justine Anthony is interested in how the menstrual cycle impacts on physical activity, particularly for
  people living with menstrual disorders. Justine is currently leading a survey and will share how the
  menstrual cycle has been addressed in the data collection.

#### **B2 - Older Adult Health**

Recruiting older adults from general practice to a physical activity intervention for older adults: the Walk with Me Study

<u>Prof Mark A. Tully</u><sup>1</sup> Conor Cunningham<sup>2</sup>, Maeve O'Doherty<sup>2</sup>, Micheal Adams<sup>1</sup> School of Medicine, Ulster University, <sup>2</sup>School of Health Sciences, Ulster University

**Background:** The Walk with Me study is a randomized controlled trial of a peer led walking intervention for people aged 60 years and over delivered in Northern Ireland. Potential participants were invited through community organisations and general practitioners (GPs).

**Methods:** Between May 2022 and March 2024, over 150 community groups and 19 General Practices were invited by the Clinical Research Network to shares study information with their clients/ patients. Practices were offered £50 per participant recruited.

**Results:** In total, 13 participants were recruited from community groups and 351 participants via the ten GP practices. The total list size of the practices was 88,134. On average 992 invite letters were sent by each practice. It took between 1 and 14 months (median 2) to recruit a practice. The median recruitment rate (number recruited as a proportion of letters sent) was 3.6%. In total, recruitment took 18 months to complete, six months longer than originally planned.

CovID-19 pandemic. They suggested this was likely due to anxiety about getting out and about, which may explain the low recruitment. GPs were motivated to engage in the study through the financial incentive, their perception that it would be beneficial to their patients, and that it was a minimal burden on the practice. In post-intervention focus groups, participants perceived that their GP had selected them personally on the basis that the study would be beneficial, which motivated them to engage. Preliminary interviews with six GPs and practice managers found that barriers to recruiting research participants included workload, difficulties identifying eligible patients and a perception that patients would not expect their GP to recommend activity. They identified a number of benefits to the practice, including reducing the burden on disease-specific clinics, and benefits to the patients involved.

Recruiting into peer volunteering studies; The challenges of recruiting two different cohorts simultaneously and the post-COVID challenge. Lessons learned during the ACE trial

<u>Prof Afroditi Stathi</u><sup>1</sup>, Janet Withall<sup>1</sup>, Diane Crone<sup>2</sup>, Helen Hawley-Hague<sup>3</sup>, Colin Greaves<sup>1</sup>, Katie Chatwin<sup>1</sup>, Amy Davies<sup>3</sup>, Zsofia Szekeres<sup>2</sup>, Chris Pugh<sup>2</sup>

<sup>1</sup>School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, <sup>2</sup>School of Sport and Health Sciences, Cardiff Metropolitan University, <sup>3</sup>School of Health Sciences, University of Manchester

Background: The Active, Connected, Engaged (ACE) is a multi-centre RCT (Greater Manchester, Cardiff, Stoke-on-Trent and Bristol) recruiting older adults as participants and volunteers into a peer-volunteering programme. ACE supports older adults at high risk of mobility disability to get out and about and become more active in their local communities.

Methods: The recruitment target was 515 adults (65yrs+) with functional limitations, scoring 4-9 (inclusive) on the Short Physical Performance Battery (SPPB), plus 150 peer volunteers (55yrs+). Recruitment yields and costs were predicted based on the REACT study outcomes. Recruitment began in January 2022 in the aftermath of the COVID epidemic and was primarily via invitations issued by GPs. Many community

organisations were holding few face-to-face activities and delivering reduced services so presented limited opportunities for recruitment.

Results: Recruitment of GPs was slower than in previous studies as GPs dealt with the COVID vaccination programme, managed backlog and engaged in COVID-related research. COVID concerns also impacted recruitment rates. We predicted we would invite 21000 (via 24-30 GP practices) potential participants to recruit 515 people over a 14-month period. We actually contacted 71,877 people (via 62 GP practices) over a 23-month period and exceeded our recruitment target (515 participants). Ultimately 528 participants were randomised (aged 65-96 years), a recruitment rate of 1.1% (including volunteer recruitment). Utilising a common invitation designed to recruit both participants and peer-volunteers successfully kept additional volunteer recruitment costs to a minimum and resulted in 246 peer-volunteers being recruited and trained.

Conclusions: The ACE study ultimately recruited to target. Response rates were significantly lower than predicted and recruitment timescales and budget required extension. The impact of COVID on recruiting both GPs and potential participants was significant. Written invitations from GPs were costly but to recruit large numbers into RCTs via community/network routes within tight timescales would be impractical.

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### Active and Connected: Place Utilisation to Enhance Physical and Social Activity in Mid-to-Older Adults

<u>Dr Ragy Tadrous</u><sup>1</sup>, Dr Victoria Palmer<sup>1</sup>, Dr Jonathan Olsen<sup>1</sup>, Dr Martin Anderson<sup>1</sup>, Dr Ruth Lewis<sup>1</sup>, Prof Kirstin Mitchell<sup>1</sup>, Dr Meigan Thomson<sup>1</sup>, Dr Benjamin Rigby<sup>1</sup>, Prof Laurence Moore<sup>1</sup>, Prof Sharon Simpson<sup>1</sup> 

<sup>1</sup>MRC/CSO SPHSU, University of Glasgow, Glasgow, UK

Background: Physical activity and social connectedness play an important role in healthy ageing. Access to facilities such as libraries, parks, and community centres can facilitate physical activity, social interaction, and community building. Little is known about how older adults use places for physical or social activities. This study aimed to explore the places mid-to-older adults go to, and why they choose to engage or not engage in physical and/or social activities in particular places.

Methods: Semi-structured interviews were conducted with community-dwelling adults aged 55-75 years (n=22;  $65.0 \pm 5.5$  years) from two communities with high levels of deprivation in Scotland, Renfrewshire and South Lanarkshire between September 2023 and March 2024. Taking a systems-based approach, we explored place utilisation among mid-to-older adults to support physical and social activity. Maps of participant's local community populated from Ordnance Survey data, such as depicting parks, were used to guide the interviews.

Results: Participants varied according to levels of physical activity, frailty, and loneliness. Places for physical and social activities included community centres, green spaces, gyms, clubs, religious buildings, shops and places for eating and drinking. Social enablers to place utilisation included having inclusive, well-advertised activities in multi-purpose spaces like community centres to foster intergenerational connections, community cohesion, and social engagement. Physical enablers included the importance of accessibility and convenience, mobility-friendly design, and diverse transport options. Barriers to place utilisation included activities that perpetuated ageist sentiments, the rising costs of physical and social activities, and seasonal barriers such as poor weather and reduced daylight.

Conclusions and implications: It is essential to provide affordable and engaging activities, as well as versatile spaces that combine recreation, learning, and social interaction to foster intergenerational and social connections for older adults. Additionally, infrastructure and transportation should prioritise accessibility, while communities should promote respect, inclusion, and active participation in society.

### Older adults' views of the age-inclusivity of physical activity websites. A think aloud study

<u>Prof Fiona Gillison</u><sup>1</sup>, Veda Clemson, Dr Lis Grey, Prof Julie Barnett, Ella Burfitt <sup>1</sup>University Of Bath

Background: Older adults are the least active in our society. They may face additional barriers to taking part in physical activity to younger people due to ageism and lower digital literacy. This study aimed to explore how older adults navigate and judge the inclusivity of websites that increasingly act as gateways to opportunities and facilities for physical activity.

Methods: Semi-structured interviews were embedded within a think-aloud approach. Participants were shown a series of websites and asked to navigate through them as if looking to take up what was on offer, while articulating their thoughts and comments out loud. Websites were rotated from a pool of eight, including leisure centres, fitness product sites, gyms and community organisations. Interviews were recorded, transcribed verbatim, and analysed using reflective thematic analysis.

Results: Nineteen participants (6 male, 13 female), aged 65–84 took part, and three key themes were identified: (1) Signals of Age-Inclusivity, (2) Limiting Beliefs, and (3) Confidence in Judgments. Older adults assessed their welcome in physical activity settings largely based on website imagery and language, preferring inclusive representations of age, body shape, and ability. Many held firm beliefs about the appropriateness of activity types for their age group, with gyms largely viewed negatively due to their younger clientele and perceived focus on aesthetics over health. While most participants could competently navigate websites, they still expressed a desire to speak to staff and visit venues to confirm the level of welcome and activity suitability before committing.

Conclusions and implications: Websites for physical activity could be more inclusive towards older adults by showing diverse images, clearly describing activities with details about fitness or ability requirements, and offering non-digital booking options.

### Healthy Ageing in Place: Perspectives on 'Local' and Age-Friendliness in the Built Environment

<u>Dr Ragy Tadrous</u><sup>1</sup>, Dr Victoria Palmer<sup>1</sup>, Dr Jonathan Olsen<sup>1</sup>, Dr Martin Anderson<sup>1</sup>, Dr Ruth Lewis<sup>1</sup>, Prof Kirstin Mitchell<sup>1</sup>, Dr Meigan Thomson<sup>1</sup>, Dr Benjamin Rigby<sup>1</sup>, Prof Laurence Moore<sup>1</sup>, Prof Sharon Simpson<sup>1</sup>

1MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

Background: Age friendly communities aim to create inclusive social and physical environments that facilitate older people to age actively, enjoy good health and continue participating fully in society. The built environment can profoundly influence older adults' health and wellbeing. This study aimed to explore mid-to-older aged adults' perceptions of the age-friendliness of their communities and how they defined localness.

Methods: Semi-structured interviews were conducted remotely and in-person between September 2023 and March 2024 with community-dwelling mid-to-older aged adults (n=22; 65.0  $\pm$  5.5 years) from two communities with high levels of deprivation in Scotland, Renfrewshire and South Lanarkshire. Taking a systems-based approach, identified barriers and supports to the age-friendliness of communities were charted against the World Health Organization Age-Friendly Cities and the Place Standard frameworks, and perceptions of localness were explored.

Results: Physical influences on age-friendliness included the accessibility of transport modalities, the maintenance of paths and public spaces, the suitability of homes, seasonal influences and environmental hazards. Social influences included access to places that facilitate social interactions such as churches or community centres, community cohesion, and employment and volunteering-related factors. Service influences included digital exclusion, ageism, and healthcare accessibility. Localness was defined by: (i) accessible and preferred modes of transport, with local areas shrinking as mobility declined; (ii) the distance needed to travel to access essential services like supermarkets and pharmacies; and (iii) places where people knew others, socialised, or visited family.

Conclusions and implications: The gradual deterioration of communities has contributed to a decline in the age-friendliness of mid-to-older aged adults' local areas. The impact of declining mobility, individual- and area-level deprivation, and closure of essential facilities and social spaces on place attachment must be considered by policy makers to support older adults to age well in place.

**\*** Exploring the experiences of peer-volunteers delivering the Active, Connected, Engaged (ACE) intervention to promote physical activity and wellbeing in physically frail or pre-frail older adults in the community: A qualitative study

<u>Daniel Boatwright</u><sup>1</sup>, Prof Afroditi Stathi<sup>1</sup>, Prof Colin Greaves<sup>1</sup>, Dr Janet Withall<sup>1</sup>, Dr Katie Chatwin<sup>1</sup>, Amy Davies<sup>3</sup>, Dr Zsofia Szekeres<sup>2</sup>

<sup>1</sup>University Of Birmingham, <sup>2</sup>Cardiff Metropolitan University, <sup>3</sup>University of Manchester

Background: Mobility limitations have a substantial impact on the health and quality of life of older adults. The Active, Connected, Engaged (ACE) study is a large, multi-site randomized controlled trial testing a peer-volunteering programme to support older adults who are at risk of lower limb mobility disability to become more active. This study investigates the experience of peer-volunteers who deliver the ACE programme.

Methods: Semi-structured interviews were conducted with 34 peer-volunteers (17 female) aged over 55, from Stoke-on-Trent (N=10), Manchester (N=10), Cardiff (N=10) and Bristol (N=4). Framework analysis was used to systematically identify themes, using the ACE intervention logic model as a starting point.

Findings: Analysis identified four core themes: 1. Motives to volunteer: This theme included motives such as altruism but also an interest in research, as well as the benefits of volunteering such as forming new friendships and learning of about opportunities within their local area. 2. Delivery process and challenges: Key challenges for volunteers were addressing the barriers raised by the participants and trying to get participants to engage initially 3. Programme outcomes is the impact ACE had on both participants and volunteers including increased physical activity and forming new friendships. 4 Recommendations this theme consists of feedback for researchers, activity providers and volunteer organizations including improving communication, intervention training and a need for targeted recruitment.

Interpretation: These findings highlight areas where variation in the delivery of ACE may have mediated the effectiveness of the programme. Including the diverse experiences of peer-volunteers across multiple sites is a strength of this study. Overall delivering the ACE intervention was a rewarding experience for peer-volunteers. Volunteers are valuable community assets bringing experience and desire to help their peers. Understanding the motives of volunteers and providing tailored, well-structured support is key in ensuring successful volunteering programmes.

### ❖ The impact of perceived age and weight discrimination on the health, wellbeing, and physical activity of older adults

Johanna Meyer<sup>1</sup>, **Fiona Gillison**<sup>1</sup> University of Bath

The English Longitudinal Study of Ageing (ELSA) is a biennial study of the lives and wellbeing of a representative sample of adults aged 50 and over in England. We used the ELSA dataset to (a) identify the prevalence of perceived weight stigma and perceived ageism in older adults, and (b) explore whether these factors predict older adults' self-reported health, quality of life and physical activity.

In 2023 (N=6278, Wave 10) 4.3% and 28% of older adults respectively reported experiencing weight and age discrimination. Rates were similar among men and women, at 3 vs 5% for weight discrimination, and 25 vs 26% for age discrimination respectively. Age and weight discrimination co-occurred in 3.1% of participants, and 71% of those perceiving weight discrimination also perceive age discrimination.

Perceived age and weight discrimination were significantly negatively associated with self-reported health (r=-.15, and r=-.08 respectively), and weight discrimination was associated with physical activity ( $\phi$ =-.08). Cross sectional regression analyses were subsequently conducted to predict health and wellbeing outcomes from the independent variables of age and weight discrimination, and the co-occurrence of both, controlling for BMI, anxiety, depression, social support and multimorbidity. Age discrimination, but not weight discrimination was a significant predictor of poorer quality of life (R2=.32, p<.001; M diff [stigma present/absent] = 3.57, SD 8.9, range 0-57). Perceived discrimination did not explain additional variance for other outcomes, whereas BMI, anxiety and depression were significant predictors of all three outcomes.

During the symposium we will present and discuss prospective associations between discrimination and health over the 10 years from Wave 5 to Wave 10, and report on the effects of co-occurring weight and age discrimination specifically for those living with overweight and obesity.

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#### **B3 - Children's Health**

### Effectiveness of NAPSACC UK: An environmental nursery nutrition and physical activity cluster Randomised Controlled Trial

**Prof Ruth Kipping**<sup>1</sup>, Prof Sharon Anne Simpson<sup>2</sup>, Dr Kim Hannam<sup>1</sup>, Prof Pete Blair<sup>1</sup>, Prof Russell Jago<sup>1</sup>, Prof Corby K. Martin<sup>3</sup>, Dr Zoi Toumpakari<sup>1</sup>, Prof Laura Johnson<sup>1</sup>, Dr James Garbutt<sup>1</sup>, Dr Rachel Maishman<sup>1</sup>, Prof James White<sup>4</sup>, Dr Rebecca Langford<sup>1</sup>, Prof William Hollingworth<sup>1</sup>, Dr Madeleine Cochrane<sup>1</sup>, Prof Laurence Moore<sup>2</sup>, Prof Dianne Ward<sup>6</sup>, Dr Anne Martin<sup>2</sup>, Dr Stephanie Chambers<sup>2</sup>, Tom Reid<sup>1</sup>, Megan Pardoe<sup>1</sup>, Dr Alex Dobell<sup>5</sup>, Dr Marie Murphy<sup>5</sup>, Susan Stratton<sup>2</sup>, Karissa Neubig<sup>3</sup>, Dr Jodi Taylor<sup>1</sup>, Prof Miranda Pallan<sup>5</sup>
<sup>1</sup>University Of Bristol, <sup>2</sup>University of Glasgow, <sup>3</sup>Pennington Biomedical Research Centre, <sup>4</sup>Cardiff University, <sup>5</sup>University of Birmingham, <sup>6</sup>University of North Carolina

Aim: To investigate the effectiveness of 'NAPSACC UK' for nutritional intake and physical activity in early education settings.

Background: Over 90% of children aged ≤4 attend UK early education settings. There is evidence that the 'NAPSACC' intervention improves nutrition and physical activity in US nurseries.

Methodology: Cluster randomised controlled trial using repeat cross-sectional assessments with 52 UK nurseries and 570 consented 2-5 year-olds. Stratified randomisation allocated 25 nurseries to intervention and 27 to usual practice control. The one-year NAPSACC UK intervention had two cycles of: nutrition and physical activity self-assessment, staff workshops and goal setting supported by public health practitioners. Co-primary outcomes were average total energy (Kcal) intake per eating occasion (lunch and snacks) consumed at nurseries and accelerometer-assessed total activity time on nursery days. Secondary outcomes were moderate-to-vigorous physical activity, sedentary time, serving size, and diet quality (percentage of core and non-core food consumed), and zBMI. Analysis was intention-to-treat.

Results: There was no evidence of an intervention effect for average kcal/occasion consumed at nurseries (geometric mean ratio 0.86, 95% CI [0.72, 1.03], p=0.09) and minutes of total physical activity (mean difference -2.13 [-10.96,6.70], p=0.64). There was strong evidence that the intervention reduced Kcal served and consumed at lunch (mean difference -69.1 [-116, -22.2], p=0.004 and -67.7 [-118.6, -18.7], p=0.009, kcal/lunch respectively). There was no evidence of a difference between treatment arms for 9/11 secondary outcomes for Kcal served and consumed at snacks, proportion of non-core Kcal consumed, zBMI and physical activity secondary outcomes. 76% (19/25) of intervention nurseries completed at least one cycle of NAPSACC UK.

Conclusions: NAPSACC UK did not improve physical activity or average calorie intake per eating occasion. NAPSACC UK did reduce energy serving and consumption for lunches, closer to national guidelines for portion size, but not snacks. NAPSACC UK should be optimised for lunches.

Evaluating planned policy action to restrict High Fat Sugar Salt (HFSS) food and drink advertising across two regions in Wales.

Dr Samantha Garay<sup>1</sup>, Dr Elinor Coulman<sup>1</sup>, Rebecca Stewart<sup>3</sup>, Sam Chettleburgh<sup>4</sup>, Andreas Pieris-Plumley<sup>5</sup>, Sian Harding<sup>1</sup>, Prof Frank De Vocht<sup>2</sup>, **Dr Kelly Morgan**<sup>1</sup>

<sup>1</sup>Cardiff University, <sup>2</sup>University of Bristol, <sup>3</sup>Cardiff and Vale UHB, <sup>4</sup>Cardiff Council, <sup>5</sup>Vale of Glamorgan Council

Background: Obesity levels have increased globally, with the UK (UK) experiencing the fourth highest rate of adult obesity in Europe. Advertising is recognised as an influential driver of behaviours and eating patterns. In

Wales, new policy action is planned across two regions to restrict advertising of High Fat Sugar Salt (HFSS) products on council owned sites e.g. bus stops. This is part of wider efforts to tackle obesity and improve healthy weight. This study evaluated public perceptions of HFSS and non-HFSS advertising and of the planned policy action.

Methods: The evaluation used a co-produced mixed methods design. An online survey was distributed among residents aged 16+ across the two regions. School-based focus groups were conducted with learners aged 9-11-years and 12-15-years across the regions. One-to-one interviews were conducted with residents. Quantitative data were analysed using descriptive statistics (N, %) with chi-squared tests used to test for the differences between advertising exposure in different demographic groups. Qualitative data were analysed using thematic analysis with a combined deductive and inductive coding approach.

Results: Survey data (N=311, 78% female) indicated that in the previous week, 68.5% saw HFSS advertising in their local area and 94.2% consumed HFSS products. Qualitative focus group (N=7, 49 total learners, 55% female) and interview (N=14, 71% female) data suggested a high awareness of HFSS advertising and general support for the policy, with perceived potential impacts on purchasing behaviour, healthier eating and general health, particularly impactful in areas of deprivation and on children. Perceived factors influencing implementation included risk to revenue, public perceptions and broader action requirements.

Conclusions and implications: The evaluation demonstrated high awareness of High Fat Sugar Salt product advertising and general support for new policy action among residents. Findings are set to inform policy decisions in Wales, with advertising restrictions proposed for 2025.

### Participatory systems mapping with preschoolers on nature-based play and learning

Dr Anne Martin<sup>1</sup>, Sharon McGregor<sup>3</sup>, **Dr Oliver Traynor**<sup>1</sup>, Dr Avril Johnstone<sup>1</sup>, Dr Paul McCrorie<sup>1</sup>, Dr Benjamin Rigby<sup>2</sup>, Marie McQuade<sup>4</sup>, Prof Sharon Simpson<sup>1</sup>

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Background: Playing and learning in nature is important for children's healthy development. While daily nature-based play is part of the UK early learning and childcare curriculum and children should spend as much time outdoors as indoors, implementation of this practice is sub-optimal. This novel study aimed to elicit preschoolers' understanding of factors that interact to enable or hinder them to play and learn outdoors while attending nursery to complement an existing adult stakeholder-generated systems map.

Methods: Children aged 4-to-5 years (n=21; 15 boys, 6 girls) from four Scottish nurseries (across two local authorities) with varying nature play provision, participated in interactive, immersive, and creative workshops. Groups of up to five children were guided through three activity stations using storytelling and inquiry-based learning techniques. Activity stations represented the system components: clothing, nature play resources, and people. Workshops were audio-recorded, system factors and causal connections were independently extracted by two researchers and combined with the adults' map.

Results: Children showed signs of understanding the complexity of implementing nature-based play through suggesting multiple one-way causalities. Children's experiences presented a 'magnifying glass', which revealed critical detail on subsystems that were identified within the adult-generated systems map, relating to risk/benefit of play in nature and the emotive consequences of inadequate clothing. Their ideas complemented the adult map with factors addressing affordances of nature for playing, and unstructured free play fostering children's independence.

Conclusions and implications: To ensure an equitable future, actively incorporating children's voices into research is paramount and speaks to the UN convention of the rights of the child. Children as young as 4 years have systems thinking skills. These skills allow their lived experiences and ideas to shape a system map on nature-based play and learning, which will inform the development of implementation strategies in early learning and childcare settings.

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School- and family-based obesity prevention in primary school-aged children in China: secondary analysis of repeated outcome measurements over 24 months from the CHIRPY DRAGON cluster randomised controlled trial

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Background: Overweight and obesity prevalence among children in China has increased almost twenty times in the last three decades, with little evidence for sustained impacts of obesity prevention interventions. This study investigated the changes over time in outcome measures following delivery of the CHIRPY Dragon obesity prevention programme among Chinese primary school-aged children. This was a 12-month school-and family-based intervention promoting physical activity and healthy eating.

Methods: A cluster randomised controlled trial was conducted in Guangzhou, China. Forty primary schools were randomly allocated (1:1) to the intervention or control group with 1641 children aged 6–7 years consented (832 intervention; 809 control). Intervention schools received the CHIRPY DRAGON programme over 12 months, and control schools continued usual practice. Participants were measured at baseline, 12-and 24-months. The primary outcome was body-mass-index z-score (zBMI). Secondary outcomes included other measures of obesity, diet, physical activity and sedentary behaviour. Mixed models for repeated measures were used to explore differences in outcomes between groups and over the 24-month period.

Results: 1513 participants had useable outcome data. At 12-months the mean change in zBMI from baseline was greater in the intervention (-0.22; 95% CI: -0.27 to -0.18) than the control group (-0.08; 95% CI: -0.12 to -0.04). At 24-months the mean change from baseline was similar in both groups: -0.04 (-0.08 to 0.01) for intervention and -0.04 (-0.08 to 0.00) for control (p-value < 0.001 for time×group effect). The intervention group also showed favourable changes in some dietary measures at 12-months, but these diminished at 24-months. No significant changes were observed for other secondary outcomes.

Conclusions and Implications: The intervention for preventing obesity in children improved zBMI at 12-months, but the effects diminished at 24-months, emphasising the potential need for sustained obesity prevention interventions to maintain long-term benefits.

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## ❖ Using the RE-AIM framework to capture the impact and implementation of a Whole System Approach to Obesity in a UK Local Authority

### **Dr Sarah Hotham**<sup>1</sup>, Dr Abi Ojo

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Background: Whole Systems Approaches (WSAs) are increasingly used by Local Authorities to address obesity. To guide the operationalisation of WSAs, a six-phase framework referred to as the 'Leeds Beckett Model' was co-developed with stakeholders. The study aimed to evaluate the implementation of the Leeds Beckett Model (LBM) in a two-tier Local Authority in South-East England by exploring:

- 1. What impact did implementing a WSA have on a) local stakeholders' knowledge and understanding of how best to address healthy weight issues and b) local stakeholders' practice?
- 2. What were the barriers and enablers to implementing a WSA?
- 3. To what extent did the WSA meet the needs of local stakeholders?
- 4. To what extent can the WSA be sustained?

Methods: To assess the WSA's impact and implementation, a mixed-method evaluation used the RE-AIM framework to collect data across five domains (Reach, Efficacy, Adoption, Implementation, and Maintenance). After 6 months of involvement in the WSA, 43 participants completed the cross-sectional LBM stakeholder survey, providing feedback on the leadership, governance, collaboration, and overall experience of the WSA. Qualitative data was collected through semi-structured interviews with stakeholders (n=17) and written feedback provided at bi-annual 'Reflect and Refresh' sessions (n=50).

Results: Involvement in the WSA positively impacted knowledge about services and initiatives. Understanding of the whole system approach improved over time and reinforced a desire to work collaboratively. Challenges included too many actions over a wide geographical area, with ill-defined endpoints and impacts. Overall, WSA amplified the importance of obesity beyond organisations focusing on weight management and health behaviours.

Conclusions: The success of a WSA across a two-tier LA can be attributed to the full engagement of stakeholders and community, good governance, and sufficient time to build collaborative relationships. Senior leadership and adequate finance were viewed as crucial to embedding the WSA within broader policy.

# **❖** Appetite in Preschoolers: Producing Evidence for Tailoring Interventions Effectively (APPETItE): a project summary

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Purpose: Children's appetite traits are the behavioural link between genetic risk and adiposity and are influenced by parental feeding practices. Parents of children who show high behavioural susceptibility to obesity need evidence-based guidance regarding feeding practice. Current advice on managing children's appetite is generic, ineffective and not tailored to children's appetite traits. Our aim was to create the evidence base for developing appetite-tailored interventions, and to co-create intervention guidelines to maximise likelihood of efficacy.

Methods: A combination of longitudinal cohort analysis (n=2404 15-month to 5-year-old twins) survey methodology (n=995 parents of 3-5-year-old UK children) qualitative interviews (n=15), ecological

momentary assessment (n=155) and a laboratory study (n=128). Workshops with parents were conducted to co-create guidelines for tailored digital intervention development.

Results: Avid eating behaviour is an identifiable profile for around 20% of 3–5-year-old children. It is distinguished by higher Food responsiveness, Emotional overeating, and Surgent temperament. These children have insatiable hunger and make constant requests for snacks and are more likely to experience food insecurity. Parents of children with avid eating profiles used more instrumental and emotional feeding practices. Distraction, modelling, structure and boundaries were important in managing avid eating behaviour. Parents articulated their need for support to create meal and snack structure; create a protective home food environment (availability and portioning) and develop strategies for dealing with snack food requests in the moment (delay, distract, portion).

Conclusion: The proposed intervention will empower parents to create a protective home food environment to buffer children with avid eating behaviour from the obesogenic environment. Strategies to help parents reduce use of food for emotional regulation/reward are needed, but changing this behaviour was perceived as very challenging for parents. Equipping parents with the skills to reduce stress/conflict without the use of food will be a key determinant of intervention success.

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### Is weight-related bullying addressed in school policies?

<u>Dr Rebecca Langford</u><sup>1</sup>, Dr Amanda Hughes<sup>2</sup>, Dr Elisabeth Grey<sup>1</sup>, Alice Haigherty<sup>3</sup>, Shepherd Fayth<sup>3</sup>, Prof Fiona Gillison<sup>4</sup>, Dr Georgie McArthur<sup>5</sup>, Caoimhe Gowran<sup>6</sup>

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Background: Weight is the most common reason for being bullied at school and can have lasting impacts on mental health. Research suggests weight bias and stigma is prevalent in educational settings among both pupils and staff.

Most schools have anti-bullying policies with best practice suggesting policies should explicitly identify forms of unacceptable behaviour, such as racism or homophobia.

We conducted an audit of secondary schools in southwest England to determine if/how they mention weight-related bullying in their policies.

Methods: We obtained lists of all secondary mainstream state, private, and special schools in seven local authorities and downloaded their anti-bullying policies. We searched policies for key words related to weight and size, as well as appearance and other targets for bullying, such as race, religion, sexuality etc. We obtained school level data including size, gender mix, academic performance and quality ratings.

Results: From 255 schools with an available policy, only 6.7% mentioned weight-related bullying. About half (48.6%) mentioned bullying in relation to appearance. Bullying was most often mentioned in relation to race/ethnicity (94.5%), sexual orientation (93.3%), gender (85.9%), religion (84.9%), or gender identity (67.5%). Private schools (N=40) were more likely to mention weight-based bullying (17.5%) than mainstream state schools (N=148, 6.1%). No special schools(N=67) mentioned weight-related bullying in their policies. There was no strong evidence that other school characteristics were associated with policy content, but small numbers limited the power of these comparisons.

Conclusions and implications: There is a mismatch between the prevalence of weight-related bullying indicated in the evidence base and its representation within school anti-bullying policies. Some types of school are more likely than others to mention weight-based bullying in their policies. We recommend schools explicitly recognise weight-related bullying in their anti-bullying policies and explore how to support staff and pupil to take action.

#### **B4 - Health Care Professionals and training**

Co-design of a behaviour change intervention to facilitate primary care healthcare professionals to proactively manage oropharyngeal dysphagia

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Background: Up to 30% of older adults have oropharyngeal dysphagia (OD), which is difficulty swallowing. Oropharyngeal dysphagia is frequently undiagnosed until people are hospitalised as a result of adverse events e.g., aspiration pneumonia.

Underpinned by the Theoretical Domains Framework, a realist review and focus groups with healthcare professionals (HCPs) identified nine behavioural mechanisms by which an intervention may facilitate proactive management of OD in primary care. This study aimed to co-design an intervention that addresses the nine behavioural mechanisms.

Methods: Primary care HCPs and patient and public involvement advisors co-designed the intervention in three rounds of 2-hour online workshops. Round 1: Participants selected behaviour change techniques (BCTs) linked to each of the nine behavioural mechanism. Round 2: Participants proposed key design elements for operationalising selected BCTs using the template for intervention description and replication (TIDieR) checklist. Round 3: A prototype intervention was presented to the panel for feedback and refinement.

Results: Ten BCTs were operationalised as; an OD e-learning course; video case studies demonstrating positive outcomes of proactive OD management; a CPD resource to re-market OD as not a red-flag for cancer; integrating OD screening questions into clinical systems; a directory of OD specialists to support HCPs; an OD advice leaflet to provide to patients; a clinical system pop-up to prompt HCPs to proactively manage OD; and a national OD dashboard to monitor and provide feedback on performance. Operationalised BCTs were designed to be delivered in three phases; i) Before the consultation- education and training, ii) During the consultation- clinical decision support and, iii) After the consultation- feedback on practice.

Conclusions and implications: This study integrated evidence and theory to co-design an intervention with relevant stakeholders. To further refine, produce and test the intervention, future work should collaborate with a wider group of stakeholders, including NHS managers and IT professionals.

Building community capacity for improved conversations to address vaccine hesitancy and misinformation with empathetic refutational techniques: a train-the-trainers model in London

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Background: Decreasing vaccine uptake in recent years has put communities at risk of vaccine-preventable diseases. London regions have the lowest national vaccine uptake, especially in deprived areas. Health professionals and community champions can be powerful messengers to encourage vaccination in communities. However, they lack training in how to handle sensitive conversations about vaccination and address misinformation while maintaining rapport.

Methods: Between October 2023 and December 2024, the University of Bristol's JITSUVAX project partnered with UKHSA London region to deliver in-person workshops for >100 health professionals, teaching the

"empathetic refutational interview" (ERI) framework for handling vaccine conversations. Grounded in empathy and cognitive science, the ERI involves tailoring communication to individuals' psychological motivations in order to address misinformation, and has been found effective for vaccine-hesitant individuals.

The JITSUVAX workshops used a "train-the-trainers" model to teach the ERI and co-produce bespoke resources adapted to localised needs so trainees could cascade training locally.

Trainees completed assessments before and after training and follow-up questionnaires one- and three-months post-training. These assessed trainees' skills and confidence in using the ERI for vaccine conversations. Trainees provided qualitative evaluations of the training and reported on subsequent use of it.

Results: Trainees showed significant improvement in their confidence and preparedness to use the ERI approach to address vaccine misinformation and have positive vaccine conversations. Trainees' skills in the ERI also improved significantly after training compared to before.

Qualitative feedback was overwhelmingly positive. Trainees consistently cited understanding of patients' psychological motivations and the framework as useful for their clinical practice, which they passed on successfully in cascade training, with positive results.

Conclusions: The training successfully equipped experienced health professionals with new skills and confidence to approach vaccine conversations. The train-the-trainers model enabled cascade training more widely within local authorities. These are crucial steps to improve vaccine outreach and community engagement.

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### Talking to children about weight - how is guidance for parents being used by professionals?

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Background: One in five children starting primary school in England are living with overweight or obesity, rising to one in three by the end of primary school. In England, the prevalence of overweight/obesity of children is monitored through the annual National Child Measurement Programme (NCMP). Research suggests parents often lack confidence in discussing weight with their children. In 2023, evidence-based guidance was produced for parents of young children to facilitate these conversations, but it is unclear how this guidance is being promoted to parents or used by public health practitioners (PHPs) working on children's healthier lifestyles programmes. This study evaluated the implementation of parental guidance on talking to children about their weight.

Methods: We used a mixed methods study design, including national online survey and in-depth qualitative interviews with PHPs working on children's healthier lifestyles programmes in the UK. Invitations to participate (survey and/or interview) were distributed via the Office of Health Improvement and Disparities and regional and national networks. Survey data was analysed in Excel; online interviews were audio-recorded, transcribed, and analysed thematically.

Results: Twenty-two participants completed the survey; twenty-one people were interviewed. Practice varied between organisations, but examples included guidance being used in NCMP letters to parents, in follow-up phone calls with parents, and in training NCMP staff and other health and education professionals. Participants valued the evidence-based guidance and its compassionate tone in addressing a sensitive issue.

Some felt it was too lengthy for families with low literacy. Others identified a need for similar guidance for older children and children with special educational needs. Though helpful, participants acknowledged the guidance was only one small part of a necessary systems-wide approach to promoting healthy weight.

Conclusions and Implications: The guidance is a useful tool but needs further promotion to increase use and adaptations for other populations.

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## The impact of international volunteering on NHS doctors' career decisions: implications for the health workforce

**Natalie Carr**<sup>1</sup>, Prof Lucie Byrne-Davis<sup>1</sup>, Prof Jo Hart<sup>1</sup>, Dr Natasha Tyler<sup>1</sup> University Of Manchester, Manchester,

Background: Doctors who volunteer in low-and middle-income countries (LMICs) develop knowledge, leadership, and communication skills, but little evidence explores how it effects their career trajectories. The objective of this study was to understand the impact international volunteering has on NHS doctors' career decision making.

Methods: Life history interviewing techniques allowed doctors to recall international volunteering experiences across the life course. A qualitative approach allowed for discussions around the extent volunteering impacted career trajectories and included motivations to volunteer.

Results: An inductive reflexive thematic analysis of transcripts revealed motivators to volunteer included faith and religion, early childhood experiences, diaspora connections, elective placements, or diplomas in tropical medicine. Career decisions were reported across a continuum. Specialisms were decided prior to volunteering or solidified when volunteering. Some specialisms were sought because of a combination of volunteering and life experiences. For others, specialisms were decided through exposure during volunteering. Institutional support and understanding of the benefits of volunteering varied amongst participants, with some reporting difficulties reintegrating back in the NHS on return to the UK.

Discussion: Doctors who volunteer are exposed to specialisms they had not considered prior to volunteering. On the other hand, placements in LMICs help doctors to realise they are more suited to other specialties. Variations in psychological and financial support for international volunteering impact doctors' psychological wellbeing and career opportunities.

Conclusions and implications: Volunteering opportunities allow doctors to solidify career specialisms resulting in reduced wastage of training and staff retention. Educational training about the benefits of volunteering to the individual and the NHS, as well as implementation of organisational support such as NHS Scotland's Global Citizenship Programme will help to reduce the psychological impact of volunteering and improve reintegration of doctors into the NHS.

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## **❖** Acceptability of an online theory-based intervention to support healthcare professionals to deliver health behaviour change interventions: a theoretically framed qualitative study

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Background: Healthcare professionals (HCPs) are encouraged to deliver health behaviour change interventions during routine consultations. An intervention, based on implementation intentions, has been designed to increase HCPs' delivery of interventions, but improving acceptability may be crucial for increasing its effectiveness and reach. The Theoretical Framework of Acceptability (TFA) guides the assessment of intervention acceptability, but to date, no studies have applied the TFA to understand acceptability of interventions to support healthcare professionals to deliver behaviour change interventions. Consequently, this study aimed to: (a) explore HCPs' experiences of an online theory-based intervention designed to support delivering health behaviour change interventions, and (b) understand the most prominent aspects of intervention acceptability, to make recommendations for refinements and implementation.

Methods: Twenty-six semi-structured interviews were conducted with a range of patient-facing healthcare professionals (including nurses, physiotherapists, dieticians, doctors and midwives) working in the NHS. The TFA informed a framework analysis in which findings were mapped onto the TFA domains.

Results: Five prominent TFA domains were generated: affective attitude, burden, intervention coherence, perceived effectiveness, and ethicality. There were mixed attitudes, but healthcare professionals were broadly positive about using the intervention (affective attitude), reporting the brief nature as a key factor in using the intervention (burden), valuing the intervention as a good fit with their professional values (ethicality), generally understanding the intervention and how it works (intervention coherence), and believing it would help to overcome a number of barriers to engaging in health behaviour change conversations (perceived effectiveness).

Conclusions and implications: This is the first step demonstrating the potentially utility of a theory-based intervention for increasing healthcare professional engagement with delivering health behaviour change interventions. Further refinements could still be made, but it is hoped that it provides a useful tool for HCPs to construct their own personalised implementation intentions, to incorporate into routine healthcare delivery.

## ❖ Tailoring Improvement Strategies in Diabetes Care: Findings from the Process Evaluation of the EQUIPD Quality Improvement Intervention

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Background: The EQUIPD trial delivered a Quality Improvement Collaborative (QIC) to specialist diabetes teams in England and Wales alongside usual feedback from the National Diabetes Audit (NDA). The QIC aimed to increase the use of insulin pumps for people with Type 1 diabetes by enhancing the behavioural response to feedback.

The QIC incorporated Behaviour Change Techniques intended to stimulate recipients to perform specified target behaviours, for example, analysing influences upon performance and identifying improvement actions to address those influences. Our process evaluation explores how teams undertook tailoring work to the enact the target behaviours.

Methods: Two virtual workshops and 11 monthly, multi-site collaborative calls were delivered and observed. Documentary analysis of virtual worksheets, and two phases of semi-structured interviews were analysed. Influences were identified using the Theoretical Domains Framework (TDF), while the Expert Recommendations for Implementing Change (ERIC) was used to categorise improvement strategies. Thematic analysis of interview and observation data is integrated with documentary analysis to describe how tailoring was enacted.

Results: Data from 31 interviews, 78 documents and 54 hours of observations were analysed to describe how planned improvement strategies evolved into enacted strategies during the 15-month intervention. Our analysis illustrates how teams engaged in tailoring to identify influences upon care behaviours and matched improvement strategies to those influences to improve their delivery of diabetes care.

Conclusions & Implications: Activities within the intervention workshops facilitated recipients to develop individualised logic models which identify actions to address contextual influences in their healthcare settings. Understanding how teams enact tailoring and how they implement strategies to improve care will support the interpretation of findings from the EQUIPD trial. Learnings from the study will inform how to support practitioners to select improvement actions and strengthen the link between individual intention and organisational behaviour change.

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### **B5 - Digital Health**

A qualitative evaluation of a novel mHealth physical activity intervention for people living with prediabetes and type 2 diabetes, delivered through primary care in the Czech Republic

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Background: Physical inactivity and prolonged sedentary behaviour are major risk factors for prediabetes and type 2 diabetes (T2D) development and progression. Despite the well-documented benefits of physical activity (PA), many individuals with prediabetes and T2D struggle to maintain adequate PA levels. The ENERGISED trial addressed these challenges by utilising a mobile health (mHealth) intervention, incorporating wearable Fitbit devices, just-in-time adaptive intervention (JITAI) context-sensitive text messages, and telephone counselling, tailored to individual needs to increase PA and reduce sedentary time. This research was carried out in the Czech Republic with participants recruited through primary care.

Methods: This qualitative study explored the experiences of 27 Czech participants (20 were diagnosed with T2D and 7 with prediabetes, aged 42-80 years) from the ENERGISED trial through semi-structured telephone interviews. The interviews focused on motivations for engagement, perceived benefits, and barriers to adherence. Thematic analysis identified key themes related to intervention components and participants' behaviour changes.

Results: The intervention was generally well-received, with positive participant satisfaction. Significant motivators included a sense of responsibility for personal health and the use of Fitbit devices, which facilitated self-monitoring and accountability. Telephone counselling further reinforced these behaviours by providing external support. The influence of JITAI messages was mixed but prompts to reduce sedentary time were positively rated.

Conclusions and implications: The ENERGISED program showed mHealth tools, especially wearables and personalised support, can aid lifestyle changes in prediabetes and T2D. However, further refinement of JITAI messages is needed to better align with participant needs. These findings are key for improving future mHealth interventions to boost PA and reduce sedentary behaviour in people with prediabetes and type 2 diabetes.

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## Reducing Healthcare Burden with Digital Behavioral Interventions: Impacts on Health Service Utilization in Eating Disorder Treatment

#### Dr Jorge Palacios<sup>1</sup>

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Background: The burden of eating disorders (EDs) on healthcare systems remains substantial, with significant barriers to effective treatment access and retention. Digital therapeutic tools, particularly app-based interventions, offer scalable solutions to enhance treatment adherence and mitigate healthcare service utilization. This study examines the effects of a digital therapeutic adjunct (Recovery Record) integrated with usual care on clinical outcomes and healthcare utilization among individuals undergoing outpatient and intensive outpatient ED treatment.

Methods: This retrospective observational study leveraged electronic health record data from a large health organization. Outcomes for patients using the app-augmented treatment (AAT) were compared with a control group receiving treatment-as-usual (TAU) over six months. Adjustments for treatment selection bias were made using logistic regression and inverse probability weighting. Key measures included urgent and emergency care visits, outpatient psychiatric utilization, and clinical outcomes such as body mass index (BMI) and depressive symptoms.

Results: App-augmented treatment was associated with a significant reduction in urgent and emergency care visits (mean difference: 0.36, P<.001) and an increase in outpatient psychiatric visits (mean difference: 10.2, P<.001). Patients in the AAT group exhibited improved BMI outcomes, particularly among underweight individuals, with significant movement into higher BMI categories (P=.01). Depressive symptoms also showed greater improvement in the AAT group compared to TAU (P=.03).

Conclusions and Implications: Integrating digital therapeutics into ED treatment pathways can optimize service utilization and enhance clinical outcomes. The observed reduction in urgent and emergency care visits suggests potential cost-saving benefits for healthcare systems, while increased outpatient engagement underscores improved adherence to evidence-based treatments. These findings highlight the promise of app-based interventions in addressing the clinical and systemic challenges of ED care. Further research on long-term efficacy, cost-effectiveness, and broader scalability is warranted to maximize the potential of digital solutions in behavioral health.

Understanding delivery and engagement of a real-world digital intervention for the self-management of Chronic Obstructive Pulmonary Disease (COPD)

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Background: Adherence to self-management plans encourages improved health outcomes amongst COPD patients. myCOPD is a digital health intervention available via the NHS, patients and professionals across the UK use it to support self-management. This is the first study that integrates analysis of patient and professional perspectives regarding delivery and rollout of a digital self-management intervention for COPD. The aim was to develop understanding of perceived barriers and facilitators to delivery and engagement of the intervention.

Methods: This was a real-world study across two clinical settings, community pulmonary rehabilitation teams and hospital teams. Thirty participants (sixteen patients and fourteen healthcare professionals) completed qualitative semi-structured interviews. The study adopted a reflexive approach to abductive thematic analysis,

with coding and initial themes developed in NVivo 14. This integrated analysis of patient and professional perspectives enabled unique themes to be developed.

Results: This study found that clinical setting affected (a) delivery of the digital intervention by professionals (passive and proactive approaches) and (b) engagement amongst patients (single-aspect and multifaceted engagement).

Themes cover; (1) important differences in healthcare settings; (2) patient characteristics that affect engagement; (3) engagement with myCOPD; (4) barriers to engagement; (5) benefits of engagement; and (6) improvements.

Conclusions and implications: This study develops our understanding of engagement with digital health interventions with the concepts of single-aspect engagement and multifaceted engagement. Additionally the study makes practical suggestions to improve delivery and engagement of digital self-management interventions for COPD.

This study will be of interest to practitioners and researchers working on the delivery and engagement of digital interventions in healthcare settings. The findings present a set of key considerations, including implications for study design, rollout of interventions, and improvements to digital interventions.

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# Acne Care Online: 45ptimizing a digital behaviour change intervention to support self-management of acne in young people

<u>Dr Mary Steele</u><sup>1</sup>, Dr Rosie Essery<sup>1</sup>, Dr Stephanie Easton<sup>1</sup>, Dr Sebastien Pollet<sup>1</sup>, Rebekah Le-Feuvre<sup>1</sup>, Ms Julie Hooper<sup>1</sup>, Charlotte Cairns<sup>1</sup>, Prof Nick Francis<sup>1</sup>, Prof Paul Little<sup>1</sup>, Prof Matthew Ridd<sup>2</sup>, Prof Alison Layton<sup>3</sup>, Prof Sinéad Langan<sup>4</sup>, Prof Andrew Thompson<sup>5</sup>, Prof Mahendra Patel<sup>6</sup>, Dr Adam Yates<sup>7</sup>, Sophie Dove<sup>8</sup>, Kate Henaghan-Sykes<sup>8</sup>, Prof Miriam Santer<sup>1</sup>, Prof Ingrid Muller<sup>1</sup>

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Background: Acne is common and can substantially impact quality of life. Despite evidence of effectiveness, use of topical treatments is low, and oral antibiotics are commonly prescribed. This study seeks to optimise a prototype digital intervention, Acne Care Online, that aims to support young people with acne to obtain and adhere to topical acne treatments. It contains structured information modules and a 'toolkit' of interactive features including a decision aid tool, a medication search and a goal-setting feature.

Methods: Following the Person-Based Approach to intervention development, think-aloud interviews were conducted with a diverse group of young people with acne (13-25 years) to observe responses to behavioural content within Acne Care Online In an iterative process, changes were made to the intervention based on this feedback. Changes were prioritised by their likelihood to influence key behavioural targets. A table of changes was used to record feedback and decisions. Interviews continued until no new concerns were being raised. Key stakeholders were also consulted, including public contributors and health professionals.

Results: Fifty-eight interviews were conducted. Overall, positive feedback was received, and the intervention content was perceived to be relatable. Issues reported included lack of clarity around key messages, confusing navigation, and not knowing where to start within the website. This prompted changes such as the addition of: 'pop-ups' clarifying complex terms, personalised tailoring directing participants to relevant information, and improved navigation with the 'toolkit' and module menu accessible from each page.

Conclusions and implications: This study resulted in an optimised intervention, which is currently being assessed in a randomised-controlled trial with good initial engagement from young people. Findings provide insights into key psychosocial issues and preferences of young people with acne.

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### Co-design of a lifestyle behavioural monitoring system for health and wellbeing – a novel approach

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Background: Real time data collection is essential in monitoring and therefore influencing behaviour during complex lifestyle interventions. Typically, this is carried out in a research setting with little regard for how it might work in a 'real world' situation. Moreover, data collection guidance is typically written for research staff only. Automation of collection of such data is an essential first-step to improve cost-effectiveness and scalability. We looked to use research experience to develop a scalable and equitable automated feedback and audit system for multiple contexts.

Methods: Data from the NIHR STAMINA Lifestyle Intervention (SLI) research programme, a behaviourally informed, supervised and individually tailored lifestyle intervention for men with prostate cancer, were fed into a stakeholder initiative consisting of patients, sports engineers and exercise professionals in stages. Stage 1 included interviews with exercise professionals and patients. Stage 2 included a co-design workshop with researchers and sports engineers and in stage 3 there was a stakeholder consultation. The prototype was developed and refined in stages 4 and 5.

Results: Barriers and facilitators of current data collection and monitoring tools were shared in interviews with patients (n = 25), exercise professionals (n = 10) and in a co-design workshop (n = 7). The functionality, features and data flows of a digital system for monitoring complex behavioural interventions for diverse users were agreed. Sports engineers developed a prototype which was refined based on feedback from stakeholders and PPI.

Conclusions and implications: This initiative has resulted in the development of a data-driven prototype underpinned by the Person Based Approach to increase the acceptability and equity of a monitoring system. The prototype and supplementary guidance requires further refinement and testing in a real life situation before being rolled out for use by multiple users within multiple contexts.

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#### **Wednesday Presentations**

### C1 - Sustainability in food choice

Comparing evidence on micro-environmental interventions targeting healthier vs. more sustainable foods: An overview of reviews

Cinja Jostock<sup>1</sup>, Elizabeth Biggs<sup>1</sup>, Ethan Knight<sup>1</sup>, Madison Luick<sup>1</sup>, Nia Wyn Roberts<sup>1</sup>, Gareth J Hollands<sup>2</sup>, **Dr Rachel Pechey**<sup>1</sup>

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Background: The potential for interventions targeting food environments to influence dietary behaviour has been explored for both healthier and more sustainable diets. However, the extent to which health-focused and sustainability-focused interventions can inform each other is unclear. This overview of reviews compares the characteristics and effectiveness of micro-environmental interventions aimed at health versus sustainability and explores mediators and moderators.

Methods: We searched 10 databases for systematic reviews including randomised controlled trials of micro-environmental interventions targeting healthier or more sustainable food choices. We conducted forwards and backwards citation tracking of included reviews. Review quality was assessed using AMSTAR2. We narratively synthesised results, categorising interventions using the TIPPME typology of micro-environmental interventions.

Results: We screened 4,154 records and included 31 reviews, of which 26 targeted health and 5 sustainability. Of 228 interventions, 31 (13.6%) targeted sustainability, 194 (85.1%) targeted health and 3 (1.3%) targeted both. There was little overlap between the intervention types investigated by health and sustainability interventions. Size and position interventions were most common for health interventions, whilst information and presentation interventions were the most frequent sustainability interventions. Default, size, and menu positioning interventions appear particularly promising for both health and sustainability benefits, albeit with limited evidence for the latter in particular. Evidence of effect modifiers was scarce. Almost all reviews had a "critically low" or "low" confidence rating based on the AMSTAR2, limiting confidence in their estimates of intervention effectiveness.

Conclusions and implications: More evidence was identified for health-focused interventions than sustainability-focused interventions. There is currently no evidence of differential responding to health vs. sustainability interventions, although we were unable to comprehensively assess this. More comparable and rigorously conducted evidence, and evidence on underlying mechanisms, is needed, prioritising generating this for the most effective interventions identified thus far (e.g. size and positioning interventions).

Impact of dishware size on energy intake in adult females: A randomized control trial examining effects on within-meal and post-meal energy intake

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Background: The influence that dishware size has on energy intake is unclear, with systematic reviews indicating low methodological quality and some studies now retracted from the scientific record. In light of this we report a pre-registered laboratory RCT aiming to measure the impact of breakfast dishware size on energy intake at breakfast and post-breakfast, as well as total daily energy intake and hunger/fullness ratings.

Methods: In a repeated-measures design, 50 females (18–77 years) were randomised to receive smaller or larger breakfast dishware on two separate days. Energy intake was also measured during the rest of the day. The primary outcomes were breakfast and post-breakfast energy intake (kcal). Secondary outcomes were total daily intake (kcal), and hunger/fullness (0-100). We examined if results differed by socioeconomic position (SEP; higher vs lower).

Results: In repeated-measures t-tests, dishware did not affect energy intake at breakfast (smaller: M=394.8 kcal; SD=172.2 larger: M=394.4 kcal; SD=164.4; d=0.003, p=0.98), and there was no statistically significant evidence that dishware size affected energy intake after breakfast, though post-breakfast energy intake was somewhat higher after using larger dishware (smaller: M=1974.6 kcal; SD=475.2; larger: M=2077.5 kcal; SD=525.9; d=0.27, p=0.06). Total daily energy intake, hunger and fullness ratings did not significantly differ between dishware conditions. A two-way mixed ANOVA indicated no evidence that SEP moderated the effect of dishware size on energy intake.

Conclusions and implications: The present study finds that breakfast dishware size had no significant effect on breakfast or post-breakfast energy intake, hunger, fullness, or daily energy intake, in line with the suggestion that previous studies of low methodological quality may have overestimated the promise of dishware size as an intervention for reducing energy intake. We argue that interventions targeting other features of the food environment to improve population health ought to now be prioritised.

Meating your match: Impact of matched vs. unmatched meat and plant-based options on plant-based meal selections in an online hypothetical randomised control trial

**<u>Dr Emma Garnett</u>**<sup>1</sup>, Elizabeth Biggs<sup>2</sup>, Elif Coker<sup>1</sup>, Dr Elisa Becker<sup>1</sup>, Prof Rachel Pechey<sup>1</sup> University Of Oxford, Oxford, UK, <sup>2</sup>The Biodiversity Consultancy, Cambridge, UK

Background: Reducing meat consumption in high-income countries is critical to reduce greenhouse gas emissions. Changes to the choice architecture in food environments – such as cafeterias and supermarkets – can influence citizens' food choices towards more plant-based diets.

One possible strategy to increase plant-based food selection is to serve "unmatched" plant-based and meat meals (e.g. "Falafel Burger" and "Chicken Pie") rather than "matched" plant-based and meat meals (e.g. "Falafel Burger" and "Beef Burger"). A possible mechanism is that those who like the taste of meat would choose a meat meal over very similar plant-based meal; whereas with unmatched meals, the plant-based dishes are in less direct competition.

However, to our knowledge no study had ever tested this.

Methods: In a novel online Randomised Controlled Trial, UK participants (704 omnivores and 220 vegetarians) answered 10 meal selection questions. All analyses were conducted in RStudio, using generalised linear mixed models with each participant included as a random factor.

Results: Meat eating participants were more likely to choose a plant-based option when a matched meat option was not available. The mean selection of plant-based meals for matched and unmatched scenarios was 21.2% [95% Confidence Intervals (CIs) 18.4%, 24.5%] and 30.4% [95% CIs 27.2%, 33.7%] respectively when two main meals were present and 37.4% [95% CIs 33.1%, 41.9%] and 44.6% [95% CIs 40.2%, 49.3%] respectively when three main meals (two plant-based, one meat) were present.

Vegetarians and vegans choices of the matched vs unmatched plant-based option were driven by meal type and protein preferences, rather than whether the option was matched or not.

Conclusions and implications: This novel evidence suggests catering managers looking to increase plant-based meal selections should serve unmatched meat and plant-based options in their establishments. However, further research in real-world settings, measuring actual – rather than hypothetical – choices is needed.

## Combining positioning and labelling interventions for healthier vs. sustainable foods: An online experimental supermarket RCT

Cinja Jostock<sup>1</sup>, **<u>Dr Rachel Pechey</u>**<sup>1</sup> University Of Oxford, Oxford, UK

Background: Healthier and more sustainable diets are urgently needed for planetary health. Targeting positioning and labelling have shown promise for behaviour change but the impact of combining these has not been investigated. This study evaluated the impact of a positioning intervention, in isolation and in combination with a labelling intervention, on the a) healthiness and b) environmental sustainability of food selections in an experimental online supermarket.

Methods: UK adults (n=2220) were randomised to control or one of four intervention groups (Health position; Health label & position; Eco position; Eco label & position) to complete an online shopping task. Position interventions biased the order in which products appeared in the online supermarket to make targeted products more likely to appear earlier. Labelling interventions added either A-E nutri-labels or eco-labels to all products. Linear regressions compared shopping baskets between groups on a) health scores (lower scores being healthier) for interventions targeting product health and b) eco scores (lower being more sustainable) for interventions targeting product sustainability.

Results: Compared to control, health scores and eco scores of shopping baskets were significantly lower in the position and the position & labels groups (Health position: -2.30; 95%CI: -3.07,-1.52; Health position & labels: -2.50; 95%CI: -3.28,-1.72; Eco position: -0.27; 95%CI: -0.38,-0.16; Eco position & labels: -0.35; 95%CI: -0.46,-0.25). However, when comparing position to position & label groups, there was no significant difference for health (-0.20; 95%CI: -0.66,0.25), while there was for sustainability (-0.09; 95%CI: -0.15,-0.02).

Conclusions and implications: Positioning products to favour healthier and more sustainable products improved the healthiness and environmental sustainability of shopping baskets in an experimental online supermarket. In contrast, additional effects of labels appear less consistent. However, there was no evidence of any negative or unintended consequences, suggesting positioning interventions are likely robust to whether or not labelling schemes are in use.

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#### C2 - Mental Health

## Supporting continuous glucose monitoring for people with serious mental illness and type 2 diabetes: A co-design study

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Introduction: Individuals with serious mental illness (SMI), such as schizophrenia or bipolar disorder, have a two to three-fold increased risk of developing type 2 diabetes and face significant health inequalities, including reduced life expectancy. Diabetes self-management in this population is challenging, and existing interventions are poorly suited to their needs. Continuous glucose monitoring (CGM) offers potential benefits but remains underutilised. This study aimed to co-design a structured CGM intervention tailored to adults with SMI and type 2 diabetes, addressing their unique barriers to diabetes management.

Methods: Using experience-based co-design (EBCD), this study engaged service users, carers, and healthcare professionals (HCPs) in workshops and discussions to identify challenges and facilitators for CGM use. Participants co-developed a logic model and programme theory for a novel intervention. The process included synthesising existing evidence, exploring personas, and mapping CGM user journeys. A draft intervention prototype was iteratively refined across multiple sessions.

Results: Ten participants (four HCPs, four service users, and two carers) contributed to the co-design process. Barriers identified included limited technical support, accessibility challenges, and the need for integrated physical and mental healthcare. Key intervention components included personalised CGM training, flexible delivery methods, ongoing support, and peer networks. The resulting intervention framework was structured into three phases: set-up, early days, and living with CGM. Participants prioritised flexibility and tailored adjustments, emphasising the importance of addressing both physical and mental health needs concurrently.

Conclusions and Implications: This study demonstrates the feasibility of co-designing interventions with individuals often considered hard to reach. The findings suggest CGM can improve diabetes self-management and reduce health inequalities for individuals with SMI, provided it is supported by comprehensive and flexible care. Future work will refine the intervention and evaluate its clinical and cost-effectiveness in diverse populations, aiming to address significant unmet needs in diabetes care for this vulnerable group.

Understanding the context and needs of adolescents experiencing subclinical anxiety and depression symptoms – the missing middle in mental health care in Wales

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Background: Globally there is a growing population of adolescents who have subclinical but elevated anxiety and depression symptoms. This study aimed to understand the context and needs of adolescents in Wales within this population – who are termed the missing middle.

Methods: The study drew on two methods. First, an analysis of 16 key documents from policy, research, and reports of stakeholders' views on adolescent mental health in Wales. Following, focus groups and interviews were conducted with 35 secondary school students aged 11-18 years old and 18 school staff. Further group and individual data collection was undertaken with 23 practitioners involved in the development, delivery, or referral of adolescents to non-clinical and clinical mental health services, and two policy officials. A hybrid approach of deductive and inductive thematic coding of the documents and the primary data was conducted.

Results: Stakeholders discussed four areas. First, contextual norms included a more mental health aware and open adolescent population, alongside challenges of misattributing normal mood fluctuations as mental ill health, self-diagnosis and social contagion. Secondly, there is a contextual shift towards a culture of prioritising adolescent mental health which has not been fully realised in Wales yet. A third area highlighted perceptions of who the missing middle are. Lastly, potential targets for intervention focused on the intrapersonal level (cultivating emotional regulation and developing problem-solving skills) as well as the interpersonal level (reducing loneliness and supporting the development of healthy social peer relationships).

Conclusions and implications. Whilst this population does not reach medical thresholds for diagnosis and specialist care, they can demonstrate high levels of distress and impacted functioning. Therefore, there is a need to provide targeted interventions for this population. The results from this study have informed a wider project to identify and adapt an effective secondary school-based anxiety and depression to Wales.

What shapes positive experiences of challenging situations? Developing and validating the Comprehensive Hierarchical Eustress Review (CHER)

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Background: Research on eustress—the positive experience of a challenging situation—poses various unanswered questions, including: What features of eustress are central to experiencing challenging situations positively? What psychometric structure best fits these features? How is eustress related to distress and psychological wellbeing? Do groups of individuals share similar eustress profiles?

Methods: To address these questions, we developed a novel eustress instrument: the Comprehensive Hierarchical Eustress Review (CHER), motivated by the Comprehensive Hierarchical construct of Eustress (CHE). CHER contains 47 items across 3 subscales, reflecting CHE's 47 features and 3 sources of eustress (goal-directed action, momentary experience, stable qualities). We evaluated CHER in a well-powered UK adult sample (n = 260) using confirmatory factor analyses, validity tests, Spearman correlations, and latent profile analysis.

Results: The confirmatory factor analyses suggest that eustress is best understood as both a unidimensional and a multidimensional construct (bifactor model), with items from all three subscales contributing to its conceptual core (CFI = .881; RMSEA = .069;  $R^2$  = 52.17%). The best performing model exhibited satisfactory reliability ( $\omega h$  = .85) with eustress being negatively related to distress (r = -.50, p < .001) and positively related to psychological wellbeing (r = .62, p < .001). We identified four clusters of individuals with distinct latent eustress profiles who differed across sociodemographic characteristics (e.g., gender) and personality traits (e.g., emotionality).

Conclusions and implications: The Comprehensive Hierarchical Eustress Review (CHER) is the first psychometric instrument to comprehensively assess positive experiences across challenging situations in a general UK adult population. Establishing the psychometric structure of eustress strongly supports its theorized sources: goal-directed action, momentary experience, and stable qualities. Further research may establish whether promoting eustress causally increases wellbeing and causally decreases distress. Identifying clusters of individuals with distinct eustress profiles can support developing tailored policy interventions for thriving under challenges.

# Associations Between Faith School Attendance and Mental Health Outcomes in Adolescence and Adulthood: Evidence from the ALSPAC Cohort in Southwest England

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Background: Childhood school experiences may shape socio-behavioral traits and mental health outcomes later in life. This study evaluates the associations between faith school attendance and mental health in adolescence and adulthood using data from the Avon Longitudinal Study of Parents and Children (ALSPAC), a prospective UK cohort.

Methods: Faith school attendance and its duration were derived from linked school records. Mental health outcomes included the Warwick-Edinburgh Mental Well-Being Scale, anxiety, and depression scores at age 17+, and the Edinburgh Postnatal Depression Scale at age 27+. Associations were analyzed using multivariable linear and logistic regression models, adjusting for parental age, education, socioeconomic status, mental health, alcohol consumption, smoking, and religious beliefs.

Results: Of 2,290 participants included in the analysis, 47.6% attended faith schools at least once. Longer faith school attendance was associated with lower mental well-being in men at age 17 (-0.58; 95% CI: -1.11, -0.04) but showed no association in women (0.03; 95% CI: -0.53, 0.60). Faith school attendance was positively associated with depression scores at age 27+ in men (1.32; 95% CI: 0.11, 2.52) but not in women (0.13; 95% CI: -0.90, 1.17). Similarly, longer attendance correlated with higher depression scores in men (0.52; 95% CI: 0.13, 0.92) but not in women (0.16; 95% CI: -0.20, 0.52). Subgroup analyses are ongoing and will be available by the end of 2024.

Conclusions and Implications: Faith school attendance, particularly for extended periods, was linked to poorer mental health outcomes in men, including higher depression scores and lower well-being. These findings underscore the importance of considering gender-specific mental health needs in educational contexts and highlight the necessity of further research to understand underlying mechanisms.

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#### C3 - Inequalities

Racial discrimination and substance and alcohol use outcomes in Racial/Ethnic minorities: a Metaanalytic review

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Background: The study aimed to assess the nature of the relationship between racial discrimination (RD) and distinct substance and alcohol use outcomes (SAU) in Racial/Ethnic minorities.

Method: Database and citation searches were conducted September 2024. Eligibility for inclusion was: 1) used quantitative methods, 2) included RD as an exposure, 3) included a SAU outcome, 4) contain a Racial/Ethnic minority sample, 5) do not include RD into a measure of general/ intersecting discriminations, 6) not a previous meta-analysis on the association. Screening and data extraction were performed by two independent coders, and assessment of study quality was conducted using the National Institute of Health tool for Observational Cohort and Cross-sectional studies. Statistical analysis was performed using univariate random-effects models in R studio.

Results: 130 studies, contributing 273 effect sizes were included. Analyses revealed significant, positive associations between RD and 16 out of 17 SAU outcomes. The strongest associations were observed for atrisk alcohol use (r = .24, 95% CI = 0.17, 0.3), at-risk cannabis use (r = .24, 95% CI = 0.18, 0.29) and substance use disorder (r = .25, 95% CI = 0.14, 0.36). Tobacco consumption and composite substance use relationships were stronger for American Indian's/Alaskan Natives, than Black Americans and Latinx. No differences across gender were observed. Moderation by age group identified a trend of stronger associations for older ages compared to younger across 6 SAU domains. Stronger associations between RD and illicit substance and tobacco consumption domains were observed for lifetime exposures, compared to past year and/or less than past year exposure.

Conclusion: RD is a consistent predictor of SAU for Racial/Ethnic minorities, but the strength of the association varies across outcome types. Race/Ethnicity, age and exposure timing moderates associations for some SAU outcomes but not others.

### Common Ambition Bristol: Addressing HIV Inequities in Partnership with African and Caribbean Heritage Communities

### Fiona Fox<sup>1</sup>, Temilola Adeniyi<sup>1</sup>

<sup>1</sup>University of Bristol

Background: Bristol has a disproportionate number of African and Caribbean heritage (ACH) people with undiagnosed HIV, late diagnosis and lower uptake of Sexual Health Services. Common Ambition Bristol (CAB) is driven by co-production with people of ACHC working in equal partnership with sexual health professionals to co-produce interventions, informed by COM-B model of behaviour, to increase HIV awareness, testing and tackle HIV stigma. Interventions include community outreach and dedicated ACHC testing clinics.

Methods: A qualitative evaluation using online surveys and telephone Interviews with ACHC members to explore, HIV knowledge, stigma and testing behaviours and views about CAB interventions and sexual health services. Data were collected by community researchers and analysed thematically.

Results: The findings highlight the impact community testing clinics and outreach have on reducing stigma and increasing testing. Initiating conversations in community settings challenged outdated attitudes about HIV persistence and transmission. This information educated people about testing options and counteracted stigma, by 'normalizing' the conversation. Such conversations were seen as more effective than providing written information about HIV and testing. It was highlighted however that public conversations about HIV may be uncomfortable for some people. Effective outreach required building and maintaining community trust via key contacts; consistent visits, visibility and adapting to the needs of individual businesses. Community based clinics were welcomed as safe, accessible spaces where patients felt represented and respected when accessing HIV testing. They were preferable to central sexual health services due to their location, the availability of walk-in appointments and shorter waiting times. The major barrier to attendance was confidentiality. This linked to stigma, whereby people worried about being seen by someone they knew.

Conclusions: Overall the CAB interventions were welcomed for 'coming to the people' to update HIV knowledge, challenge stigma, change attitudes and normalise HIV testing.

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Determinants of maternal vaccination inequity in England: survey studies of midwives and mothers perspectives

<u>Dr Emma Anderson</u><sup>1</sup>, Prof Peter Blair, Prof Adam Finn, Prof Jenny Ingram, Dr Christie Cabral <sup>1</sup>University Of Bristol, Bristol, UK

Background: Pertussis vaccination is recommended for all pregnant women in the UK. Uptake is suboptimal and declining, with large regional and demographic variability, leaving neonates at risk. Seasonal maternal vaccines for influenza and Covid-19 are also recommended with similar uptake and equity issues. We aimed to identify determinants of vaccination to inform potential for intervention.

Methods: Cross-sectional online surveys of: NHS maternity healthcare professionals (HCPs) from highest-and lowest-vaccinating England regions for maternal pertussis; mothers of babies aged <6 months from lowest-vaccinating regions.

Questionnaire design and analysis applied the 'COM-B' framework to assess vaccination antecedents. Logistic regression modelling compared: HCPs from low- versus high-vaccinating regions and; mothers unvaccinated versus vaccinated against pertussis in their recent pregnancy.

Key Results: 551 HCPs (mainly female midwives) from 39 trusts participated between 11/2022–05/2023. Deprivation was the strongest predictor of low-vaccinating regions. Controlling for this, low-vaccinating regions were associated (<5% significance) with HCPs lacking confidence to discuss vaccination (16% low; 7% high), wanting more training (79% low; 69% high), finding vaccine discussions burdensome (14% low; 6% high) and feeling responsible for vaccination. Free-text responses indicated a midwife culture of avoiding direct advice/persuasion.

337 diverse mothers participated between 06/2023–05/2024. 20% were unvaccinated for pertussis in their recent pregnancy. Controlling for background factors (more children, lower education, urban living), variables also associated with non-vaccination were: mothers lacking awareness of the recommended vaccine (26% unvaccinated versus 3% vaccinated) and disagreeing with the statements: a)'my midwife thought I should have the vaccine' (48% versus 8%) and, b)'most women accept whooping cough vaccination in pregnancy' (45% versus 12%). More unvaccinated mothers reported vaccine hesitancy in themselves and important influences.

Conclusion: Promising potential for improvement includes ensuring pregnant women receive clear midwife recommendations in favour of vaccination, and providing midwives with protected training in knowledge and communication skills to advocate vaccination.

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## The reality of recruiting in the community: resource and time, building relationships and managing expectations

<u>Victoria J Palmer</u><sup>1</sup>, Meigan Thomson<sup>1</sup>, Martin Anderson<sup>1</sup>, Emily Long<sup>1</sup>, Benjamin Rigby<sup>1</sup>, Sharon Simpson<sup>1</sup> MRC/CSO Social and Public Health Science Unit, University of Glasgow

Background: This talk focuses on expectation vs reality of recruiting mid-to-older aged adults to the Physical Activity, social ConnectednESs and healthy ageing (PACES) project highlighting challenges, successes and key lessons learned. The PACES project used a systems approach to understand physical activity, social connectedness and healthy ageing to develop interventions to increase physical activity and social connectedness in mid-later life.

Expectation: We aimed to recruit 250 adults aged 55-75 living in Scotland to take part in social network surveys, qualitative interviews and workshops. Recruitment pathways included: partner community-based organisations (via their member networks, social media, and in person at events/classes); other community groups and organisations; community noticeboards; online groups (e.g., Facebook). For social network surveys we also recruited through the Royal Mail postcode lookup with approximately 600 potential participants in both locations mailed a study flyer.

Reality: Recruiting participants to PACES was challenging and we faced multiple issues that led to changing recruitment targets (from 250 to 100) and study timelines (adding around six months to recruitment phase). Building and maintaining relationships with community partners was not always straightforward and required time and resource. Challenges relating to COVID-19 (e.g., lower numbers engaging with services, less inperson interaction) meant project partners were not always able to reach participants as expected. We also experienced fraudulent responses to social media posts and a poor response to mail out. After lowering targets, we successfully recruited 140 adults aged 55-75. Despite efforts to engage participants from deprived backgrounds only 8.6% were from the most deprived areas and 75% had completed college or university education. Our most successful strategy was contacting and/or visiting other community organisations and engaging with their participants.

Conclusions: To recruit successfully in the community, researchers need to plan time and resource to cover building relationships with partner organisations and their communities.

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#### C4 - Self-management

Personalised Exercise Rehabilitation FOR people with Multiple long-term conditions (PERFORM): findings from a feasibility RCT

<u>Prof Sharon Simpson</u><sup>1</sup>, Dr Eleanor Brown<sup>1</sup>, Prof Rachael Evans<sup>2</sup>, Prof Rod Taylor<sup>1</sup>, Prof Sally Singh<sup>2</sup>, Dr Shaun Barber<sup>2</sup>, Prof Colin Greaves<sup>3</sup>, Dr James Manifield<sup>2</sup>, Ms Zahira Ahmed<sup>2</sup>, Prof Emma McIntosh<sup>1</sup>, Nikki Gardiner<sup>2</sup>, Dr Sarah Dean, Prof Patrick Dougherty<sup>5</sup>, Dr Tracy Ibbotson, Dr Bhautesh Jani, Prof Kate Jolly<sup>3</sup>, Prof Frances Mair<sup>1</sup>, Dr Paula Ormandy<sup>6</sup>, Prof Susan Smith<sup>7</sup>

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Background: NHS exercise-based rehabilitation services are designed and delivered for single long-terms conditions, yet the number of people living with multiple long-term conditions (MLTCs) is growing. We developed a Personalised Exercise Rehabilitation intervention FOR people with MLTCs (PERFORM) consisting of group-based exercise and self care support. The study aimed to evaluate the acceptability and feasibility of PERFORM to inform progression to a definitive randomised controlled trial (RCT).

Methods: A mixed methods randomised feasibility trial was conducted across 3 sites. Adults with MLTCs were randomised to either the PERFORM intervention plus usual care or usual care alone. Primary feasibility outcomes were trial recruitment, retention and intervention adherence. The proposed primary outcome for the future RCT (EQ-5D-5L) and other secondary outcomes were assessed at baseline and 3-month follow-up. Interviews were conducted with patients and health care practitioners delivering the PERFORM intervention, to seek their views of the intervention and study. Interviews were analysed thematically, informed by Normalisation Process Theory and the programme theory.

Results: Recruitment rate reached 100% of target (60/60) within the 4.5-month recruitment window. 46/60 participants (76.7%) attended the 3-month follow-up visit and 29/40 (72.5%) participants attended ≥60% sessions (≥9/14 sessions). 18 patients and 6 health professionals were interviewed. All found PERFORM feasible and acceptable and useful for physical and mental wellbeing. Minor modifications to the intervention delivery, training and study methods were identified, including reducing the number of assessments and tailoring education more effectively. Scheduling, staffing, and space limitations were barriers that must be considered for future evaluation. Key intervention mechanisms identified were social support, patient education, building routines and habits, and support from healthcare professionals.

Conclusions: PERFORM was acceptable and feasible, with the potential to improve the health and wellbeing of people with MLTCs. The findings support progression to a definitive trial to assess clinical and cost effectiveness.

lanment of a theory evidence and person based intervention to entimize proventer medication

Development of a theory, evidence and person-based intervention to optimise preventer medication for adults presenting to the Emergency Department with asthma

**<u>Dr Imogen Skene</u>**<sup>1,2</sup>, Dr Anna De Simoni<sup>1</sup>, Dr Ben Bloom<sup>1,2</sup>, Dr Paul Pfeffer<sup>1,2</sup>, Dr Liz Steed<sup>2</sup> <sup>1</sup>QMUL, London, UK, <sup>2</sup>Barts Health NHS Trust, London, UK

Introduction: For adult patients attending Emergency Departments (EDs) with uncontrolled asthma, salbutamol is the inhaled medication most frequently prescribed at discharge, despite increasing evidence of harm from salbutamol over-prescription. New medication regimens, e.g. Maintenance and Reliever inhaler Therapy (MART), are increasingly recognised recommended, but research has shown that clinicians and

patients will need to be supported to switch away from salbutamol. Our previous research has explored and inductively analysed patients' and healthcare professionals' (HCPs') beliefs, to switching long-term medication in the ED. Findings suggested that ED HCPs and patients were open to prescription of alternative treatments like MART.

Method: Our intervention planning process comprised of integrated workstreams which combined theory-evidence and person-based elements: (i) collating evidence from a systematic review (ii) synthesis of the qualitative research including a secondary deductive analysis using the theoretical domains framework (TDF) to understand barriers and facilitators to prescribing (iii) used the person-based approach to develop guiding principles for intervention design (iv) developed a logic model (v) behaviour change techniques were selected and translated into intervention content (vi) intervention materials developed and refined with input of stakeholders.

Results: Guiding principles suggested for an intervention to facilitate prescriptions of MART regimen from ED it would need to be brief, to support HCPs decision making to enhance patient understanding and ensure communication with primary care. We identified key domains from the TDF as theoretical constructs necessary for change including knowledge, skills, addressing beliefs about consequences, and targeting role perception. These domains were targeted through clinical decision aid and training materials for ED HCP, template discharge summary and materials for patients.

Conclusion: Our integrated approach to intervention development, enabled us to ground the intervention in an in-depth understanding of the barriers and facilitators most relevant to optimising preventer medication for asthma in the context of the ED.

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Exploring Chinese and Indian students' attitudes and experiences regarding self-management of infections: a qualitative study of user needs

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Background: Antibiotics can be purchased without prescriptions at community pharmacies in China and India, leading to frequent self-medication among university students, including medical students, increasing antimicrobial resistance (AMR) risks. Chinese and Indian migrants tend to bring antibiotics from home and self-medicate due to the perceived difficulty in accessing healthcare in the UK. This study aims to explore Chinese and Indian international students' attitudes and experiences regarding self-management of infections to inform co-development of a behaviour change intervention to support the appropriate self-management of infections.

Methods: A PPI panel with Chinese and Indian students was created to co-design the intervention, using the Person-Based Approach. In-depth interviews are also being conducted to explore students' needs. These will inform the development of the intervention programme theory (e.g. Guiding Principles and Intervention Planning Table).

Results: PPI discussions revealed students' dissatisfaction with the UK healthcare system due to long wait times and delayed treatment, leading students to prefer self-management for common infections. Concerns about getting sick and insufficient support abroad suggested the intervention's necessity. Initial interview findings indicate that students are familiar with primary care and the NHS but prefer healthcare systems in China/India due to greater efficiency and lower costs. Misunderstanding and misuse of antibiotics were found. Bringing antibiotics to the UK is motivated by a sense of insecurity and previous antibiotic use habits. Students

expressed interest in an intervention to improve awareness of AMR, strategies for self-managing common infections, and guidance on when to seek medical help.

Conclusions and implications: These findings confirm the need for a behaviour change intervention to support Chinese and Indian students in navigating UK healthcare and self-managing common infections. Codeveloping the intervention with PPI and addressing users' needs should improve its feasibility, acceptability and engagement rate, making it more likely to achieve better antibiotic stewardship among this population.

#### C5 - Behavioural medicine in Secondary Care

### Understanding (Un)Sustainable Behaviours in Operating Theatres: an Ethnographic Study

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Background: The healthcare sector is a major contributor to the climate crisis, and operating theatres (OTs) are one of the highest sources of emissions. A top priority identified by the James Lind Alliance Priority Setting Partnership is understanding how surgical staff can be encouraged to adopt sustainable actions. We conducted the first known ethnographic study to investigate behaviours related to sustainability in OTs, and influences on those behaviours to inform the design of effective behaviour change interventions.

Methods: Non-participant ethnographic observations with opportunistic discussions in elective general surgical OTs were conducted June-November 2023 at two university hospitals in Central London. Data were collected until saturation using a template developed during initial observations. Inductive thematic analysis was conducted, with sub-themes (influences) deductively mapped to the Theoretical Domains Framework (TDF).

Results: Twenty-six procedures were observed(42 hours). Unsustainable behaviours included: (i) unnecessary and inappropriate glove use(average 9-10 pairs per operation), (ii) incorrect waste disposal, (iii) unnecessary package opening, and (iv) energy waste. Thematic analysis generated 6 themes and 16 influences (mapped to 9 TDF domains). Key themes were that sustainable practices are "Infrequent and inconsistent" due to limited awareness (Knowledge) and low environmental concerns (Memory, attention and decision processes). Unsustainable behaviours were "habitual" and performed automatically (Lack of attention). Drivers of unsustainable practices were: "Precaution" (Emotions, Beliefs about consequences); "Efficiency" (Goals); "Past experiences" (Emotions, Social influences); and the "Physical environment" (Environmental context and resources). "Leadership" (Social influences) was a driver of sustainable practices.

Conclusions and Implications: This study reveals unsustainable practices, which may also compromise patient safety (improper glove use increases infection risk). It provides a nuanced understanding of (un)sustainable practices and their drivers, e.g. the strong impact of habit, knowledge, and the striving for efficiency. This understanding can inform the design of more effective behavioural interventions, taking into account operating theatre context.

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## Using system mapping to understand the barriers and enablers to long-term follow-up care for patients who have had bariatric surgery

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Background: Guidelines highlight the importance of long-term post-bariatric surgery follow-up and the involvement of primary care in this process. However, there are no established NHS post-bariatric care pathways. The Promise Care study aimed to develop a comprehensive system map of NHS post-bariatric surgery care, incorporating perspectives from diverse stakeholder to identify key influencing factors.

Methods: Three online stakeholder system mapping workshops were held with a diverse sample of post-bariatric surgery patients, healthcare professionals and service commissioners. Across the workshops, and in real time, participants collaboratively developed, reviewed, and refined a system map to capture a comprehensive view of the care landscape.

Results: Each workshop was attended by 19 stakeholders (workshop 1 all patients, workshops 2&3 8 patients, 11 healthcare professionals/commissioners). There was strong alignment in perspectives between patients and healthcare professionals/commissioners, resulting in a comprehensive system map. The nodes with the most connections were "confidence in ability to control weight in the future" and "confidence in the NHS system". Patients' confidence in managing their weight over time was identified as a key outcome, shaped by access to dietetic, psychological, physical health support, and specialised care. Positive feedback within this reinforcing loop was associated with "feeling better about long-term health", negative interactions were perceived to precipitate poorer outcomes. Another important node with multiple connections across the systems map was "consistency of standards of care".

Conclusions and implications: The system map reflects insights from earlier qualitative interviews with healthcare professionals within the Promise Care study, further highlighting issues related to service commissioning, access, and the need for specialist support. This map will inform the development of a future study aiming to co-develop and test interventions to improve post-bariatric care.

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### Reducing the environmental impact of anaesthesia: a sequential mixed methods study

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Background: Operating theatres (OTs) are a major source of carbon emissions, with anaesthetic gases responsible for 42% of emissions. Local and regional anaesthesia (LA/RA) produce significantly lower emissions than general anaesthesia (GA), making their use a top priority on the Intercollegiate Green Theatre Checklist. This study explores the factors influencing the use of GA versus LA/RA.

Methods: A mixed methods study using the Theoretical Domains Framework (TDF) was conducted between June 2023 and April 2024. The qualitative phase included semi-structured interviews with OT staff (N=19). Transcripts were analysed inductively using framework analysis, and sub-themes deductively mapped to the TDF. Qualitative findings informed the quantitative phase, whereby a national survey was distributed to OT practitioners.

Findings: Four themes and 17 subthemes were identified from the interviews (mapped to 8 TDF domains). Important influences included: (i) required facilities and speed (Environmental context and resources), (ii) providers perception of patients' preferences and attitudes (Goals), (iii) experience and confidence (Beliefs about capabilities), and (iv) Conforming to default anaesthesia type (Memory, attention and decision processes). The survey (N=347) showed that nurses(68%) and anaesthesia nurses (73%) believed a key advantage of local anaesthesia is shorter surgical time; however, only 19% of surgeons and 15% of anaesthetists believed this. Surgeons agreed that having a dedicated LA list is feasible and efficient(M=4.03, SD=1.01). Participants viewed key benefits of GA are not having to worry about patients' potential movement, pain, anxiety, or team discussions. While anaesthetists reported confidence in providing RA(M=3.84, SD=1.29), surgeons expressed lower confidence in using LA(M=3.57, SD=1.34).

Conclusions and Implications: This study highlights key barriers to using local/regional anaesthesia, including differences in opinions on advantages of local anaesthesia between professional groups. Key drivers influencing general anaesthesia use included perceived patient choices and attitudes, and provider's confidence. Findings can inform the design of more successful sustainability interventions.

### Pilot behaviour change intervention to reduce unnecessary non-sterile glove use in operating theatres

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Background: Non-Sterile Gloves (NSGs) are frequently used unnecessarily in operating theatres (OTs), leading to financial and environmental costs for the NHS, as well as potential safety risks. Our previous empirical research identified that unnecessary NSG use is habitual, driven by perception of risk to themselves and patient safety, social pressures, and lack of availability of alternatives. In this study we piloted a behavioural intervention to reduce unnecessary NSG use in OTs.

Methods: The intervention was developed using the Theoretical Domains Framework and Behaviour Change Wheel. At two theatres at St Mary's hospital, London, we conducted 14 weeks of baseline observations (55 procedures) followed by a phased implementation of:

- 1. Additional gel dispensers and point-of-use posters alerting when NSGs are not needed (6 weeks, 17 procedures)
- 2. Sharing animated video combining instructions with consequences of behaviour (3 weeks, 10 procedures)
- 3. Interactive education/training sessions on video concepts (4 weeks, ongoing).

  Total and unnecessary pairs of NSGs used, instances of hand gelling, and an account of facilities (gel, glove and bin availability) were documented for each procedure, twice a week during half-day observation periods.

Results: From 82 procedures observed, around 12 pairs of NSGs were used in total per procedure (IQR = 6.75) of which 8 pairs (67%) were unnecessary (IQR = 5.00). Within unnecessary NSG use, there were significant differences between baseline, phases 1 and phase 2,  $\chi^2$  (2) = 23.9, p<.001, with lowest unnecessary use in phase 2. Staff used 9 pairs unnecessarily per procedure at baseline (IQR = 5.50), 9 in phase 1 (IQR = 3.00) and 4 in phase 2 (IQR = 3.00).

Conclusions and implications: The intervention, which was designed to address identified determinants, appears to have reduced unnecessary glove use during phase 2. We expect a further reduction following the final training phase of the intervention.

## D1 Symposium - Breaking barriers, building bridges: Understanding ethnic minority and geographic inequities in the cancer care pathway (A UKSBM Cancer Special Interest Group sponsored symposium)

**Convenors:** Dr Hannah Long<sup>1</sup>, Dr Sophie Reale<sup>2</sup>, Dr Ruth Evans<sup>2</sup>
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This body of research will be of interest to members of the UKSBM Cancer SIG as well as behavioural scientists, implementation scientists and health psychologists working across the spectrum of cancer research, those working in public health (e.g. registrars/consultants in local authorities, commissioners, health economists) and, more widely, to anyone looking to understand, reduce, or prevent further exacerbation of health inequities in cancer and beyond.

#### Purpose:

- Explore barriers to cancer screening while highlighting innovative and acceptable self-sampling screening tests to increase uptake among women from diverse ethnic groups.
- Apply an intersectional lens to understand how ethnicity and location can impact on people's experiences of cancer care.
- Showcase novel qualitative research employing diverse methods and theoretical approaches to describe the views and experiences of different groups of people who use or deliver cancer services across the pathway.

Objective: To explore and better understand ethnic minority and geographic inequities across the cancer care pathway.

Rationale: Despite significant advances in cancer care, cancer inequities persist across the cancer care pathway. These disparities are visible in lower screening uptake, delayed diagnoses, reduced treatment options, and poorer care outcomes for marginalised groups. A better understanding of these inequities and the groups most affected is essential to ensure all populations have equitable access to high-quality cancer care. This symposium brings together a body of novel research that explores these challenges, providing insight and evidence to inform future interventions and policies. This will be of interest to health psychologists and behavioural scientists, particularly those looking to reduce or prevent further exacerbation of health inequities in cancer.

Summary: Paper 1 explores the acceptability of novel self-sampling techniques for cervical screening among women from diverse ethnic groups. Paper 2 investigates healthcare providers' experiences of promoting breast screening initiatives and uptake among ethnic minority women. It identifies actionable insights into the perceived enablers and barriers to these initiatives. Paper 3 applies an intersectional framework to understand how ethnic minority women's identities influenced their experiences of the breast cancer care pathway. Finally, Paper 4 broadens the discussion to geographic inequalities, exploring the interacting personal and geographic barriers encountered by people with lung cancer (and their carers) living in rural/urban settings undergoing treatment for cancer.

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## Acceptability of self-sampling for cervical screening in ethnically diverse groups in Northwest England: a qualitative focus group study

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Background: Research indicates disproportionately low cervical screening uptake for diverse ethnic groups in England. If acceptable, self-sampling for cervical screening might address population-specific barriers and improve screening uptake. This study, as part of Alternative CErvical Screening (ACES) Diversity, aimed to explore the prospective acceptability of self-sampling (urine sampling and self-swabbing), as an alternative to current cervical screening, among women from diverse ethnic groups.

Methods: Participants were recruited via community partners in Northwest England and a cross-sectional survey. Eight focus groups were conducted (one online, seven in-person; four with interpreters for Mandarin, Cantonese, Polish and Urdu) with forty-eight women from diverse ethnic groups. Data were transcribed, translated and analysed in English using thematic framework analysis guided by the Theoretical Framework of Acceptability (Sekhon et al., 2017).

Results: Three themes were generated with an overarching theme 'We want choice', which captured how women wanted options in deciding how to engage with the screening programme. Theme 1 'Cultural considerations', explored how aspects of culture and faith influenced women's perceptions of self-sampling. Theme 2 'Desire for comfort and control', reflected how self-sampling was perceived to offer greater autonomy. Women considered physical and emotional aspects of gaining control through self-sampling by providing opportunities to maintain privacy, reduce pain and potentially reduce the (physical and emotional) tension associated with cervical screening. Theme 3 'Confidence in testing' summarised women's beliefs about self-sampling, focusing on ease of use, practical challenges and test accuracy concerns.

Conclusions and implications: If introduced, self-sampling methods could increase screening uptake among women from diverse ethnic groups and was viewed as highly acceptable overall. However, self-sampling should not entirely replace current speculum-based screening. Additionally, reassurance is needed regarding the accuracy of self-sampling and communication strategies should be carefully developed and tested. Future research should also explore the experienced acceptability of urine self-sampling for screening.

#### Experiences of promoting breast cancer screening among ethnic minority women: A qualitative study

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Background: Ethnic minority women continue to face challenges that result in lower breast cancer screening rates. Numerous initiatives have attempted to promote uptake for screening in various ethnic minority groups, but evaluations are sparse, so knowledge is not cumulative.

This study aims to investigate the experiences of healthcare providers and other people involved in implementing initiatives for breast cancer screening among ethnic minority women in the Northwest of

England. Specifically, it seeks to understand their views of which initiatives work and why; and to understand the challenges and facilitators encountered by healthcare providers in addressing inequalities in breast cancer screening.

Methods: The research adopted an inductive qualitative approach. Healthcare providers underwent in-depth semi-structured interviews. Informed by the notion of information power the study has recruited 16 providers to date. Professional roles include clinicians, nurses and community-based healthcare workers engaged in delivering breast cancer screening initiatives. Reflexive thematic analysis has been used to identify and interpret patterns and themes within the data, shedding light on the experiences, perceptions, and strategies of healthcare providers in this context.

Results: Preliminary findings\* highlight numerous initiatives used to promote screening uptake such as: simplifying breast screening information e.g. 'easy read' leaflets, conducting breast cancer screening awareness workshops, and sending reminder text messages for screening appointments. Preliminary themes identified include: 'challenges in promoting breast cancer screening', 'structural and systemic barriers' and 'tailored communication approaches.'

Conclusions and implications: The findings of this study are anticipated to inform the development of tailored, culturally adapted interventions. By synthesising the experiences from delivering existing interventions, future initiatives can be informed by what has worked or not worked in the past.

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## Applying the intersectionality lens to understand minority ethnic women's experiences of the breast cancer care pathway in the UK: A qualitative interview study

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Background: In high-income countries with comprehensive healthcare systems inequities along the breast cancer pathway exist. Exploring the role of structural power in relation to individuals' location in society can yield novel insights into cancer inequities. We aimed to understand how minority ethnic women's identities (age, gender, ethnicity, social position) intersected with social networks and healthcare services to influence their experiences of breast cancer care.

Methods: Semi-structured interviews with 20 women aged 31-60 years with a breast cancer diagnosis identifying as: Asian (n=7), Black (n=9), and of mixed ethnicity (n=4) about their breast cancer journey. The Black Feminism Thought (BFT) and Intersectionality Framework guided the design and delivery of the study and provided sociohistorical lenses to understand how multiple systems of discrimination interconnect to disadvantage some populations more than others. The data were analysed using Framework Analysis.

Results: We developed four themes: (a) feeling stereotyped by healthcare professionals (HCPs) and social networks; (b) influence of HCPs' knowledge, attitudes, and behaviours; (c) perceived barriers in healthcare services; and (d) influence of cultural beliefs. We observed that multiple factors intersected and created power asymmetries between participants, HCPs, and the healthcare system. These factors influenced participants' behaviours and care experience (e.g., self-silencing, questioning equity in service provision, perceived experience of racism/microaggressions). We provided a conceptual framework to illustrate the multifaceted factors that explain pathways to inequities for minority ethnic women with breast cancer.

Conclusions and implications: Our findings underscored that minority ethnic women negotiate complex processes that influence their coping responses, access to services, and management of their disease. Our

study exposed cross-cultural challenges and some institutional deficiencies that systematically disadvantage minority ethnic women with breast cancer. These findings suggest that policymakers and clinicians should review and reformulate policies and cancer services to ensure they provide culturally responsive and equity-focused care to all women.

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#### Distance and Disadvantage: Challenges to engaging with lung cancer care in urban and rural settings

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Background: There are wide variations and inequalities in lung cancer care and survival outcomes across the UK. Patients in remote rural and coastal areas (Lincolnshire), or densely populated urban communities (Northeast London), will face overlapping and unique challenges to engaging with care and receiving timely diagnosis and treatment. We aimed to explore how patient and carer characteristics, and factors related to their location, interact to influence patient experience and their capability, opportunity, and motivation to engage with their lung cancer care pathway.

Methods: Semi-structured interviews were conducted with lung cancer patients in receipt of surgery, radical radiotherapy, or treatment for advanced cancer, and their informal carers, from Northeast London and Lincolnshire. Interviews were conducted in-person and by telephone from November 2023 to October 2024. Framework analysis, informed by the COM-B behaviour-change model, was conducted to compare data by site and participant characteristics, and to aid the development of themes.

Results: 55 lung cancer patients and 31 informal carers were interviewed. In urban areas, public transport was efficient and regularly used. Patients with comorbidities or those in rural areas, relied on personal cars, taxis, or hospital transport which was expensive and inconvenient. In Lincolnshire, patients were required to travel to multiple hospitals for investigative tests and treatments which had significant financial impacts. Patients across both sites held misunderstanding and preconceptions about lung cancer and treatments which influenced their decisions. Family members provided essential support with travel, finances, emotions, and care management.

Conclusions and implications: People with lung cancer in Northeast London and Lincolnshire experience similar barriers, yet face specific location-related challenges to engaging with the care pathway. These findings will inform the design of a patient engagement tool to support people with lung cancer to engage with and benefit from lung cancer care.

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#### D2 - Screening and Sexual Health

### Healthcare professional use and public awareness of speculum size and lubricant use to reduce discomfort during cervical screening

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Cancer Research UK

Background: Research shows that anticipation and experience of pain are key barriers putting people off taking part in cervical screening. Use of a different size speculum and application of lubricant to the sides of the speculum may reduce discomfort. Best practice guidance states that sample takers should choose the appropriate speculum and apply lubricant to the sides of the speculum. This research aimed to understand healthcare professional use and public awareness of different size speculums and lubricant to reduce discomfort during cervical screening.

Methods: Online surveys were administered to GPs (n=1,006), practice nurses (n=165) and the public (questions about speculum size and lubricant were completed by 1,267 and 1,054 females aged 18+, respectively) in the UK.

Results: Almost half of practice nurses (48%) consider changing speculum size with every patient, and two thirds (66%) use lubricant with every patient. Only 26% of GPs said that their practice has processes in place which cover consideration of speculum size and application of lubricant. A substantial proportion of females are not aware that they can ask for a smaller size speculum (60%) and lubricant (54%). After being told that this is an option, 55% are likely to ask for a smaller speculum and 60% are likely to ask for lubricant to be applied.

Conclusions & Implications: A multi-pronged approach that educates and restructures the environment is likely to be needed to address pain during cervical screening. Practices should ensure they are implementing protocols, and healthcare professionals who conduct cervical screening should ask patients if they have concerns and offer adjustments that may reduce pain and discomfort (such as use of different size speculums and lubricant). People invited to cervical screening should be informed of ways they can reduce pain during the procedure and encouraged to ask for these during their appointments.

#### Improving HIV Prevention and Testing in GP Practices

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Background: General Practice (GP) could play a key role in maximising HIV testing opportunities and raising PrEP awareness. Early-stage HIV infection is frequently missed, despite undiagnosed patients often presenting to their GP. HIV testing rates in general practice in the UK are variable with healthcare professionals reporting barriers to testing. This study aimed to develop an intervention to increase HIV testing and facilitate access to PrEP within GP.

Methods: Following the person-based approach, we scoped the literature and consulted experts to understand the barriers and facilitators to HIV testing and access to PrEP in GP. Semi-structured interviews with healthcare practitioners and stakeholders explored the challenges and potential solutions. The

intervention design process followed an iterative approach, documenting the results of reviews, expert consensus, and qualitative data in a planning table. Focus groups were held with healthcare professionals and the public to develop the intervention to address barriers and support facilitators.

Results: Barriers identified through the scoping review and the interviews included lack of knowledge and awareness of HIV and PrEP, stretched resources with little time to discuss and carry out tests and a lack of systematic ways to identify who to test. Healthcare professionals and stakeholders proposed strategies for increased testing. They were keen to receive HIV/PrEP training and wanted simpler ways to provide a test, to normalise the testing process, and to reduce HIV stigma.

These findings informed three components of the intervention: education and training to raise awareness of HIV testing and PrEP; an opt-out approach to testing and a systematic way to identify who to test by embedding a clinical decision support application within the electronic health record.

Conclusions: Utilising a theory, evidence and the person-based approach enabled the development of a new multicomponent intervention focused on increased testing and access to PrEP within GP.

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# Factors affecting cervical screening experiences in women with overweight and obesity: A mixed methods systematic review

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Background: Women with overweight and obesity are less likely to attend cervical screening. This mixed-methods systematic review aimed to (1) Identify the barriers and facilitators that affect cervical screening experiences for women with overweight/obesity, reported by women themselves or healthcare providers, and (2) use behaviour change theory to suggest targets for intervention, aiming to improve screening participation and reduce inequalities for this population.

Methods: Five databases were searched for qualitative, quantitative, and mixed-methods studies. Studies were included if they explored barriers and/or facilitators affecting access to or uptake of cervical screening for women with overweight/obesity or healthcare providers. Quality was assessed using the Mixed Methods Appraisal Tool. Barriers and facilitators were coded using the Capability Opportunity Motivation-Behaviour model (COM-B) and Theoretical Domains Framework (TDF) and linked to intervention recommendations using the Behaviour Change Wheel.

Results: After screening 1,925 records, 7 studies were included: 5 quantitative, 1 qualitative, and 1 mixed method. Four studies focused on the views of women with overweight/obesity, 2 on healthcare providers, and 1 on both. Reported barriers and facilitators mapped onto all components of the COM-B model except automatic motivation and covered 9 / 14 domains within the TDF. Healthcare providers reported barriers mainly within knowledge, physical skills, and environmental context and resources, such as limited availability of suitably sized equipment. Women with excess weight cited similar environmental context barriers but also reported social influences and beliefs about consequences (e.g., embarrassment, fear, and negative interactions with healthcare providers). Recommended interventions included education, training, and environmental restructuring.

Conclusions and implications: Additional training for healthcare providers and offering HPV self-sampling could increase cervical screening participation among women with overweight/obesity. More qualitative

studies are warranted to deepen understanding of the barriers and facilitators and inform the development of effective interventions to improve screening uptake in this population.

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Understanding Opportunistic Vaccination Uptake amongst Gay, Bisexual and other Men who have Sex with Men in Sexual Health Services: A Qualitative Interview Study

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Introduction: In England, gay, bisexual and other men-who-have-sex-with-men (GBMSM) are eligible for HPV, Hepatitis A virus (HAV), and Hepatitis B virus (HBV) vaccinations opportunistically through specialist sexual health services. However, current research shows limited understanding of the factors influencing vaccination uptake among GBMSM. This study aimed to examine the barriers and facilitators affecting the offer and uptake of vaccination programmes.

Method: A qualitative interview study following the Person-Based Approach which aimed to recruit 30 GBMSM and 10 staff members from specialist sexual health services and their community partners in Bristol and Liverpool. Staff interviews included clinicians, data managers, and commissioners. Purposive sampling captured the perspectives of GBMSM with diverse backgrounds and engagement with sexual health services. Patient and public involvement shaped the study design and interview questions. The interviews were recorded, transcribed, and analysed thematically.

Results: Preliminary findings suggest that vaccines are routinely offered to GBMSM attending sexual health clinics, with frequent contact with patients receiving PrEP (pre-exposure prophylaxis) aiding vaccination uptake and completion. Greater efforts are needed to reach those who do not regularly attend clinics. Clinician knowledge of the vaccination programme and prompts from data systems also support vaccination offers. Data systems and reporting could be enhanced to better capture vaccine delivery. Some GBMSM can be unsure of their vaccination status, potentially leading to delays while they contact previous healthcare providers or restart vaccination. Additionally, a lack of reminder systems can hinder completion. The rise in online testing services may also impact on vaccination access. Insights into GBMSM attitudes, vaccine knowledge and preferred strategies to increase uptake will be available at the conference.

Conclusion: This study highlights the factors influencing opportunistic offer of vaccination and its uptake among GBMSM in sexual health clinics. Findings will guide interventions to optimise vaccine delivery, address health inequalities and improve surveillance data.

#### Increasing Access to PrEP Via Community Pharmacies to Improve HIV Prevention

#### China Harrison<sup>1</sup>

<sup>1</sup>University of Bristol, NIHR ARC West and NIHR Health Protection Research Unit (HPRU) in Behavioural Science and Evaluation

Background: Pre-exposure prophylaxis (PrEP) is a highly effective medication that HIV-negative people can take before and after sex to reduce their risk of getting HIV. PrEP is available for free from NHS sexual health clinics in England. However, some people may find it difficult to access PrEP because of the stigma associated with using sexual health services and this can lead to increasing health inequities. Pharmacies are ideally placed to reach disadvantaged, marginalised and vulnerable populations and already play an important role in public and sexual health work in the UK.

Methods: To understand if it is possible to use pharmacies to increase access to PrEP we conducted a scoping review of the international literature informed by COM-B model of behaviour to design a PrEP pharmacy pilot. To review the published evidence we searched 10 databases and identified 649 potentially relevant journal articles and after screening for eligibility, reviewed 56. Most of the eligible records were original publications about research conducted during or after the year 2020 in the US. To explore the barriers and facilitators of community pharmacy PrEP delivery for UK, interviews were conducted with pharmacists and underserved community members identified as being at elevated risk of acquiring HIV.

Results: The study identified several barriers to pharmacy-based PrEP delivery, including a lack of awareness and knowledge about PrEP and lack of PrEP training for pharmacists. Pharmacy PrEP delivery was acceptable for pharmacy staff and community members, but PrEP awareness raising and training is required.

Conclusions: To be feasible, a behaviour change intervention need to address barriers and leverage facilitators to support implementation. To increase capabilities and motivation, training and awareness raising for pharmacy staff and community members is needed. To increase opportunities and motivation, environmental and system changes (e.g. facilities, financial reimbursement) are required.

## Understanding the acceptability and preferences regarding HPV self-sampling for people with a physical disability, impairment, condition, or difference

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Background: Disabled people are at higher risk of delayed diagnosis and cancer mortality, in part because of lower cervical screening uptake. A proposed alternative to speculum-based cervical screening is Human Papillomavirus (HPV) self-sampling, which involves a woman taking a high vaginal swab herself. Only if the sample is high risk HPV positive, is conventional screening needed. The aim of this study was to investigate the acceptability of HPV self-sampling and clinician-assisted sampling as an alternative to speculum-based cervical screening for Disabled people.

Methods: One thousand UK based participants took part in a cross-sectional online survey in July 2024. Participants were aged 25-64 (M=41, SD=10.8), eligible for cervical screening, identified as having a physical Disability, condition, impairment or difference and had not had a total hysterectomy. Participants rated statements developed with patient and public involvement (PPI) stakeholders about screening preferences including suitability of HPV self-sampling.

Results: 69% of participants felt they would be able to administer HPV self-sampling and 95% of those would not find self-sampling embarrassing however, 63% would worry they are not doing the test correctly. 53% would prefer HPV self-sampling at home, 17% clinician assisted self-sampling and 17% conventional cervical screening. Open-ended responses suggest that self-sampling could help to reduce screening related anxiety for physically Disabled people. A further round of data collection is underway, final analyses will be completed by March 2025.

Conclusions and implications: HPV self-sampling has the potential to make cervical screening more accessible for many physically Disabled people especially with reassurance and clear instructions. However, it will not be a suitable alternative for all and increased dialogue between patients and clinicians to find individually tailored solutions will improve patient choice and likely engagement. Findings are expected to inform the release of self-sampling as it becomes available in the UK.

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#### **D3 - Adolescent Health**

### Understanding the Barriers, Facilitators, and Motivators to Adolescent Sleep through Photovoice

<u>Catriona Ewart</u><sup>1</sup>, Dr Anne Martin<sup>1</sup>, Dr Jo Inchley<sup>1</sup>, Prof Sharon Simpson<sup>1</sup> University of Glasgow

Background: Poor sleep among adolescents is a growing public health concern. Existing interventions have failed to engage stakeholders in their development, potentially limiting their effectiveness and acceptability. The aim of this study was to engage adolescents, parents, and teachers through Photovoice, an arts-based approach, to understand the barriers and facilitators to adolescent sleep, and motivating factors to promote healthy sleep.

Methods: This study was conducted in three schools across Scotland between January – November 2024. Forty-two adolescents aged 11 - 15 years (M = 13.1, 56% female) were conveniently sampled to participate in a photography exercise, participatory analysis workshop, photo-elicitation interview (n = 36) and share their photos at a school exhibition. Focus groups were also conducted with teaching staff (n = 14) and parents (n = 6). Thematic analysis of interview/focus group data was conducted, guided by themes from the participatory analysis, along with narrative analysis of texts, workshop discussions and exhibition feedback. Themes were inductively analysed across the socioecological model to identify leverage points and potential intervention targets to improve adolescent sleep.

Results: Factors influencing sleep identified among adolescents, parents, and teachers included societal factors (social norms, curriculum, school start times, and public health policy), social and physical environmental factors (school, home, digital, physical and social spaces), and individual factors (lifestyle choices and behaviours, mental wellbeing). Factors motivating young people included knowledge and beliefs about sleep, perceived and experienced benefits of good sleep, and social support.

Conclusion: Using photovoice gave voice to young people and facilitated engagement with stakeholders. Potential areas identified for development include early intervention, sleep education, parental support, peer influence, public health messaging, gamification, and whole-school approaches to sleep. Findings highlight the complexity of individual, social, environmental, and societal factors influencing sleep, which will inform the development of multi-level intervention to promote healthy adolescent sleep.

ice approach to reduce night-time use of interactive electronic devices and social media

A peer influence approach to reduce night-time use of interactive electronic devices and social media among adolescents (CLOCK OFF): a feasibility study

<u>Catriona Ewart</u><sup>1</sup>, Cassie Wu<sup>1</sup>, Dr Anne Martin<sup>1</sup>, Sally Good<sup>2</sup>, Alyson O'Brien<sup>3</sup>, Prof Sharon Simpson<sup>1</sup> University of Glasgow, Glasgow, UK, <sup>2</sup>Evidence Impact, <sup>3</sup>Sleep Action

Background: Poor sleep among adolescents poses significant risks to their health and wellbeing. A key contributor to delayed bedtimes and disrupted sleep is night-time use of interactive electronic devices (IEDs), including for social media. This study aimed to assess the feasibility of CLOCK OFF, a school-based intervention combining teacher-led lessons and peer-nominated students trained as Peer Supporters (PS) to promote healthy sleep habits and reduce IED use.

Methods: The intervention was implemented with S1 students in four Scottish schools during 2024. Phase 1 (two schools) ran from April to June, followed by intervention refinement and Phase 2 (two schools) from August to November. In totally, sixty Peer Supporters were trained by a sleep charity. Semi-structured interviews and focus groups were conducted to assess perspectives from Peer Supporters (n = 18), non-Peer

Supporters (n = 9), teachers (n = 8), parents (n = 8), and trainers (n = 5). Data underwent thematic analysis, with 50% independently double-coded.

Results: Key strengths identified included the peer nomination process (representative, fair), engaging peer training and teacher-led lessons (useful and comprehensive, engaging materials and activities), and benefits of the PS role (improved confidence, expanded social networks, and reports of reduced IED use). Challenges included teacher time constraints (study set up, training, lesson delivery), perceived role of PS (sharing peer messages, gap in digital strategies, limited awareness of PS), engagement (fidelity of nomination process, training materials, parental involvement), researcher challenges (school coordination, obtaining consent).

Conclusions: Feasibility testing addressed uncertainties and informed adaptations for future randomized controlled trials. Further refinements will consider duration of teacher training, dose of PS training, session content and materials, inclusion of digital strategies, and parental engagement. These modifications aim to enhance the impact and scalability of CLOCK OFF.

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### Unveiling the complexity of social capital for adolescent mental wellbeing: findings from a system map

**Nhung Doan**<sup>1</sup>, Dr Benjamin Rigby<sup>2</sup>, Dr Joanna Inchley<sup>1</sup>, Prof Sharon Simpson<sup>1</sup> University Of Glasgow, Glasgow, UK, <sup>2</sup>Newcastle University, Newcastle, UK

Background: The positive impact of social capital on adolescent mental wellbeing (MWB) is well evidenced, however there is limited research exploring the interactions between stakeholders and factors contributing to social capital. This study aimed to explore this research gap by employing a participatory systems approach. It also sought to identify leverage points to strengthen social capital to promote adolescent MWB.

Methods: Five in-person mapping workshops were conducted. Four workshops were with adolescents aged <16 (n=17); and one workshop with adults (n=6), including school staff, parents and community stakeholders. Adolescents developed their maps using post-it notes and colourful yarns, which were then used in the workshop with adults. All workshops were held in a school library in West Scotland. Map analysis combined techniques from qualitative and social network analysis to identify key factors, feedback loops, and potential leverage points for interventions.

Results: The final map included 62 factors expanding across six settings/actors contributing to community social capital: family, school, friends, romantic relationships, social media, and neighbourhood. Family was identified by adolescents as the most important setting for their MWB, relying on them most for emotional support. Parental monitoring factors played a key role in protecting young people from potential harms (e.g. from peer pressure or social media). While adolescents needed support from adults, mental health issues that adults experienced were a barrier that reduced the capacity of parents and school staff to better support adolescents.

Conclusions and implications: The system map reveals various settings/actors influencing adolescent MWB that go beyond the ones that have typically been the focus of past research (i.e. romantic relationships and social media). The key findings also highlight the importance of mental health support for adults so that they can better support adolescents.

### Social contagion or behaviour transfer? The dynamics of multiple health behaviours and peer social networks in adolescence

#### Dr András Vörös

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Background: Peer social networks impact various health behaviours in adolescence, including diet, physical activity, and substance use. Social contagion, one's behaviour being influenced by that of one's social ties, is a key process shaping these behaviours. However, most studies of contagion focus on single behaviours and ignore that behaviours may cluster in individuals, which may lead to biased findings. Methodological limitations have so far prevented the study of social contagion on multiple behaviours in a single modelling framework. Drawing on recent advances in statistical network modelling, I examine how seven health behaviours, related to diet, physical activity, and substance use, change with evolving social networks in adolescent groups. I query the role of social contagion and behaviour transfer mechanisms (e.g., drinking inducing smoking) in shaping these behaviours over time.

Methods: I study a subsample of 5 Swedish and 6 German classrooms from the first two waves of the CILS4EU longitudinal social network survey. The data was collected in 2010-12 among then 14-15-year-old participants. To date, this is one of the few publicly available datasets that contain longitudinal information about complete social networks of communities and more than two-three health behaviours. I apply an extension of stochastic actor-oriented models that was developed specifically to study the joint dynamics of multiple behaviours and social networks while accounting for individual characteristics.

Results: Meta-analyses of classroom-level models by country suggest that social contagion positively affects the adoption of the seven behaviours (Sweden: OR=1.65, p<0.01; Germany: OR=1.73, p<0.01). Considering behaviour transfer reduces the estimated effect of contagion and makes it non-significant in Sweden (Sweden: OR=1.60, p=0.056; Germany: OR=1.60, p<0.05).

Conclusions and implications: The results highlight that ignoring behaviour clustering can lead to biased findings about social contagion in health behaviours. Research should jointly consider specific intra-individual and network processes affecting multiple health behaviours in adolescence.

The association between weight stigma, disengagement coping and avoidance behaviours in young women across the weight spectrum: a mixed-methods study

**Emma Solomon-Moore**<sup>1</sup>, Jarin Alam<sup>2</sup>, Cathy Griffiths<sup>3</sup>
<sup>1</sup>University of Bath, <sup>2</sup>Norfolk and Suffolk NHS Foundation Trust, <sup>3</sup>University of Bath

Background: Many young women feel pressure to achieve certain body standards, especially with the proliferation of body image content on social media. Studies have investigated the negative consequences of weight stigma in women living with overweight or obesity, however, there is a paucity of research across the weight spectrum. This study aimed to investigate the ways that weight stigma affects women of all sizes, and the extent they engage in avoidance behaviours.

Methods: An online survey was conducted with 18-35-year-old UK women (N=601; body mass index (BMI) 14.9-65.6kg/m2), collecting information on demographics, weight bias internalisation, stigmatising situations, sources of stigma, coping responses, and avoidance behaviours. Nineteen semi-structured interviews were conducted, asking participants about their awareness, experience and perception of weight stigma, how it has affected their behaviours, and strategies to tackle weight stigma. Descriptive statistics were used to understand patterns of stigma across BMI categories. Linear regression analyses were conducted to explore

associations between weight stigma with disengagement coping and avoidance behaviours. Interview data were analysed thematically.

Results: 55.9% of participants reported experiencing weight teasing, 17.7% experienced weight discrimination, and 72.1% avoided posting photos online at least occasionally. Frequency of experiencing stigmatising situations, weight bias internalisation, disengagement coping response, and avoidance behaviours varied by BMI category (p<0.001). Higher weight bias internalisation was positively associated with disengagement coping (B=0.35; 95%Cl=0.31-0.39; p<0.001), avoiding physical activity in public (B=0.47; 95%Cl=0.33-0.61; p<0.001), and avoiding eating out (B=0.30; 95%Cl=0.18-0.41;p<0.001). Themes included the negative impact of mothers, ever-changing beauty standards online, age-related shifts in body positivity, and the role of social media trends.

Conclusions: Experiences of weight stigma were prevalent across the weight spectrum. Internalising weight bias was associated with avoidance behaviours. Family members (especially mothers) and social media trends play an important role in how young women view their bodies and engage in health behaviours.

## D4 Symposium - Healthy, Sustainable Diets by Co-design - Results from the SALIENT Programme of Food System Trials

Convenor: Elisa Becker<sup>1</sup>

**Discussants:** Elisa Becker<sup>1</sup>, Peter Scarborough<sup>1</sup>, Oyinlola Oyebode<sup>2</sup>, Terpsichore Panayotidis<sup>3</sup> & Oliver Huse<sup>4</sup> <sup>1</sup>University of Oxford, <sup>2</sup>Wolfson Institute of Population Health, Queen Mary University of London, <sup>3</sup>Nesta, <sup>4</sup>London School of Hygiene and Tropical Medicine

This symposium is designed for researchers interested in real-world dietary interventions. It will particularly appeal to those working in public health, sustainability, behavioural science, and food systems, as well as anyone seeking insights into co-designed, industry-partnered approaches to healthier and more sustainable diets.

Purpose: To explore the efficacy, acceptability, and implementation insights of interventions designed to promote healthier, more sustainable food choices in real-world settings, drawing from findings across multiple trials and a cross-trial process evaluation conducted within the SALIENT programme.

Objective: This symposium aims to present key findings from three field trials and one cross-trial process evaluation, showcasing innovative interventions in diverse food environments and their potential to influence dietary behaviours. Through this, attendees of the session will identify actionable lessons for conducting and scaling such interventions to support health and sustainability objectives.

Rationale: The SALIENT programme was established to address the urgent need for scalable interventions that promote healthier and more sustainable diets in the UK. Poor dietary choices drive ill health and environmental degradation, yet efforts to shift consumption toward plant-based and less processed options have shown mixed success. By testing interventions in real-world settings, the programme seeks to generate robust evidence on effectiveness, acceptability, and feasibility while also providing insights for policymakers, the food industry, and public health practitioners.

Summary: This symposium will present findings from three randomised controlled trials (RCTs), and one corresponding process evaluation.

The trials all aimed to nudge consumers towards healthier and more sustainable food choices, using a variety of methods, including adjusting the availability of food options (discretionary items and meat-based meals), eco-labels, and offering swaps with and without price discounts.

Complementing these results, the cross-trial process evaluation will provide insights into the feasibility, acceptability, and implementation challenges faced by stakeholders, including intervention designers, implementers, and end-users.

Together, the presentations will highlight the potential of well-designed interventions to drive meaningful change in food environments and identify critical factors for successful scaling and adaptation in diverse settings.

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### The effect of increasing availability of vegetarian meals on their sales, greenhouse gas emissions and calories

Elisa Becker<sup>1</sup>, Emma Garnett<sup>1</sup>, Rachel Pechey<sup>1</sup>, Peter Scarborough<sup>1</sup>

<sup>1</sup>University of Oxford, Nuffield Department of Primary Care Health Sciences, Radcliffe Observatory Quarter

Background/Objective: Transitioning Western diets toward more plant-based foods benefits both health and the environment but relies, in part, on individuals opting for vegetarian over meat-based meals. Food choice environments often promote meat over plant-based food choices, for example by making the former more available. This study evaluated the effectiveness of increasing the availability of vegetarian meals in UK worksite cafeterias on their sales, and health and sustainability metrics.

Methods: A stepped-wedge randomized controlled trial (RCT) was conducted across six worksite cafeterias in the UK over seven weeks. The intervention involved replacing one meat-based lunch main meal with a vegetarian option. The primary outcome was the weekly sales ratio of vegetarian out of total meals, analysed via a binomial mixed-effects (with site as random intercept) model. The effect of the intervention on per-meal calories and greenhouse gas emissions (GHG), as well as business metrics and food waste was also evaluated.

Results: The intervention (encompassing 26,170 meal sales) significantly increased the likelihood of selecting a vegetarian meal by 41% (95% CI: 28%–55%, p < 0.001). There was no evidence of effects on total meal sales, cafeteria revenue, or food waste. GHG emissions per meal were reduced (-153.19 kg CO2-eq, 95% CI = -443.71 – 137.34), and calories per meal sold decreased by 26.06 kcal following the intervention (95%CI = -34.42 – -17.71).

Conclusion: Increasing the availability of vegetarian meal options in worksite cafeterias significantly increased their sales, decreased calories consumed and greenhouse gases emitted, without negatively affecting business metrics or food waste.

## The use of eco-label and price discounts on promoting more sustainable online grocery purchases in the UK: a randomised controlled trial

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Background: Effective interventions are needed to promote sustainable food choices. Online grocery shops offer a way to study and evaluate these on a large scale. This study examines the impact of eco-labels and price discounts on the sustainability of grocery purchases in a real UK online supermarket.

Methods: Participants recruited from the UK Prolific panel were randomly assigned to one of six groups in a 2x3 factorial design. The interventions were (i) eco-labels, displaying the environmental impact of products on a scale of A to G, and (ii) price discounts (£1, £0.50, or no discount) offered on more sustainable alternative products for <3 items in their basket. The primary outcome was the average eco-score of purchased products,

with lower scores indicating more sustainability. Preliminary results are based on data from the first two waves, with partial data from waves 3-5, which are ongoing, resulting in a sample size of 1396 participants who have completed >1 shop. Regression analysis was used to test the effectiveness of the interventions.

Results: Initial findings suggest that eco-labels have a negligible effect on the sustainability of grocery purchases (b = -0.06, SE = 0.44, p = 0.89). In contrast, price discounts improve the sustainability of purchases if sufficiently large (for £1 discount: b = -1.05, SE = 0.50, p = 0.04). There appears to be an interaction between the interventions (greater effect of price discounts with labels present (b = -1.58, p = 0.03), than without labels (b = -0.61, p = 0.39)). Further analysis will explore the mechanisms driving these effects, including consumer acceptance of alternatives and willingness to pay for more sustainable products.

Conclusions and Implications: Price incentives may be a more promising way to promote sustainable online grocery purchases than eco-labels alone. Policy interventions such as subsidies or taxes may be more impactful than information-based approaches alone.

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## <u>Reducing the Availability of Discretionary Items in SHops (RADISH): A stepped wedge cluster randomised trial in a UK surplus food social supermarket</u>

Darren Hilliard<sup>1</sup>, <u>Terpsichore Panayotidis</u><sup>1</sup>, Jessica King<sup>2</sup>, Liz Gallagher<sup>1</sup>, Hannah Forde<sup>3</sup>, Hugo Harper<sup>1</sup>, David Dearlove<sup>1</sup>

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Background: The rise in diet-related illness, which disproportionately affects lower-income groups, is driven by an overabundance of unhealthy products in the food system. Interventions modifying food availability could increase purchases of healthier products, yet have not been tested at scale. Here, we determined the effect of a store-wide intervention in a UK community supermarket to restrict the availability of discretionary products on the calorie content of shoppers baskets.

Methods: We conducted a cluster-randomized stepped-wedge trial to assess the impact of restricting discretionary product availability on calories purchased. In 12 stores, the availability of five target discretionary product categories was reduced: crisps, sweet baked goods, sweets and confectionery, sweet biscuits and bars, and high-sugar carbonated drinks. Availability was reduced by decreasing the proportion of total shelf space allocated to these products. We analysed transaction data to assess changes in the quantity and composition of calories in shoppers' baskets.

Results: Results are preliminary. The intervention resulted in a 45% decrease in the availability of target discretionary products in stores. The primary outcome assessed the proportion of calories from high fat, salt, and sugar (HFSS) food and drink. The intervention led to a decrease in HFSS calorie proportion, with an odds ratio of 0.89 (95% CI: 0.83 - 0.95, p<0.01), equivalent to an average marginal reduction of 2.6 percentage points from the baseline of 31.7%.

Conclusions and Implications: This is the first study to evaluate the effect of modifying store-wide availability of discretionary products on the composition and quantity of calories purchased. We found that reducing discretionary product availability can lower calories purchased without significant revenue loss. This study highlights the potential for broader impact of availability interventions, and provides robust evidence to advise policymakers in scaling impactful strategies for healthier food environments.

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## The implementation of availability-based healthy food interventions in social supermarket settings: A qualitative process evaluation

<u>Oliver Huse</u><sup>1</sup>, Bea Savory<sup>1</sup>, Greg Hartwell<sup>1</sup>, Lily Barnett<sup>1</sup>, Claire Thompson<sup>2</sup>, Laura Cornelsen<sup>1</sup>, Suzan Hassan<sup>1</sup>, Steven Cummins<sup>1</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine, <sup>2</sup>Centre for Research in Public Health and Community Care, University of Hertfordshire

Background: There is a need to understand how to implement food system interventions that promote healthy and sustainable diets for all populations. Social supermarkets, which offer surplus products to members at discounted prices, support lower-income households in accessing affordable food. This study was a process evaluation of an intervention which reduces the relative availability of less healthy items within these stores. We explored intervention implementation, how and why it works, for whom, and in what circumstances.

Methods: A convenience sample of customers (n=31) and staff (n=9) were recruited from five intervention stores to participate in semi-structured interviews. Interview questions explored the impact of the intervention on food choices, perspectives on intervention mechanisms, and the role of the social supermarket in food decisions, and were grounded in realist principles. Data were analysed using Framework Analysis.

Results: Key themes included pragmatic/logistical issues and social/contextual factors. Pragmatic/logistical issues included: i) the additional burden on staff of intervention implementation and maintenance, including workload and profit-loss concerns, and ii) perspectives on intervention mechanisms of impact, including removal of products from line-of-sight, and helping health-conscious customers avoid unhealthy options. Contextual factors included: i) stocking challenges when relying on unpredictable surplus food, limiting alternatives available for display, ii) small store size, which limited storage capacity for unhealthy stock, and reduced the scale of potential food environment changes. Social factors related to affordability influenced customers' views of intervention sites, which they saw as crucial sources of financial and social support. While there was appreciation for activities promoting healthy eating, many still viewed unhealthy items as a deserved treat.

Conclusions and implications: Availability-based interventions may improve the healthiness of food environments in social supermarkets. Understanding the mechanisms behind intervention impacts, barriers to implementation, and the socioeconomic status of intervention recipients, is important for future food system interventions and policies.

#### **D5 - Addictions**

'StopWatch' - developing and evaluating the feasibility of a smartwatch-based smoking relapse intervention

<u>Chris Stone</u><sup>1</sup>, Rosie Essery, Joe Matthews, Felix Naughton, Marcus Munafo, Angela Attwood, Andy Skinner <sup>1</sup>School of Psychological Science, University Of Bristol

Background: Despite the benefits of smoking cessation, maintaining abstinence during a quit attempt is difficult and most attempts result in relapse. Innovative, evidence-based methods of preventing relapse are needed. We present a smartwatch-based relapse prevention system that uses passive detection of smoking to trigger just-in-time smoking cessation support.

Methods: The Person-Based Approach for intervention development was used to design the StopWatch smoking relapse intervention. Intervention delivery was triggered by an algorithm identifying hand movements characteristic of smoking from the smartwatch's motion sensors, and the intervention messages (co-designed by smokers) were delivered on the smartwatch screen. Twenty smokers tested the intervention over a two-week period, and at the end of this time provided qualitative feedback on acceptability of both the intervention and the smartwatch platform.

Results: Participants reported that the smartwatch intervention led to increased awareness of smoking, and motivated them towards quitting. Intervention messages were generally felt to be relevant and timely. There were some challenges with battery life that had implications for intervention adherence, and the bulkiness of the device and the notification style reduced some participants' acceptability of the smartwatch platform.

Conclusions and Implications: Our findings indicate our smoking relapse intervention, and the use of a smartwatch as a platform to host a just-in-time behaviour change intervention, are both feasible and acceptable to the majority of participants as a relapse prevention intervention, but we identify some concerns around the physical limitations of the smartwatch device. In particular, the bulkiness of the device and the battery capacity present risks to adherence to the intervention and the potential for missed detections. We recommend that a longer-term efficacy trial be carried out as the next step.

Does alcohol-free advertising promote purchases of alcohol of the same brand? – An online experimental randomised controlled trial

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Background: Restricting alcohol advertising is a cost-effective way to reduce alcohol consumption and related ill-health. However, advertisements for alcohol-free beverages that have brand-matched alcoholic versions are typically exempt from such restrictions, which could lead to surrogate marketing. This study aims to examine the impact of advertisements for brand-matched alcohol-free beverages on product selections in a simulated online supermarket.

Methods: We conducted a randomized controlled trial with 1,638 UK adults, assigned to one of three groups: (1) Alcohol adverts (n=469), where participants viewed an advertisement (embedded within a video) for one of four alcoholic beverages; (2) Alcohol-free adverts (n=472), for one of four brand-matched alcohol-free beverages; and (3) Neutral adverts (n=697), for batteries. Participants then selected any food and drinks for a

BBQ in a simulated online supermarket. Logistic regressions compared selections of alcoholic and alcoholfree items between groups, with the neutral group randomised to one of the four brands as a control. We also examined the recall of advertised brands and items.

Results: Viewing alcohol or alcohol-free advertisements significantly increased the odds of selecting the advertised items, compared to the control (alcohol: OR=1.62, 95%CI: 1.03, 2.53; alcohol-free: OR=2.18, 95%CI: 1.24, 3.91). The odds of selecting the alcoholic version of the advertised items after viewing alcohol-free adverts did not significantly increase (OR=1.48, 95%CI: 0.94, 2.33). Fifty-nine percent of participants in all three groups recalled the advertised brand, while 33% in the alcohol-free group recalled the advertised item, compared to 57% in the alcohol group ( $\chi^2$ =297.16, p<.001).

Conclusions and implications: Exposure to brand-matched alcohol-free beverage advertisements increased brand (over product) recall, but evidence of the impact on alcohol selection was inconclusive. Despite alcohol advertising restrictions usually excluding brand-matched alcohol-free beverages, our findings suggest that these adverts may influence perceptions and behaviours at the brand level. Potential underlying mechanisms could be explored further.

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# A qualitative evaluation of ASSIST (A Stop Smoking in Schools Trial) - a peer-led smoking prevention intervention for young people in the Philippines and Indonesia

Dr Amanda Vettini<sup>1</sup>, Prof Sharon Simpson<sup>1</sup>, Prof Laurence Moore<sup>1</sup>, **Dr Kate Reid**<sup>1</sup>, Dr Emily Long<sup>1</sup>, Dr Sean Semple<sup>2</sup>, Dr Meigan Thomson<sup>1</sup>, Prof Yayi Suryo Prabandari<sup>3</sup>, Dr Retna Siwi Padmawati<sup>3</sup>, Dr Maria Guadalupe Salanga<sup>4</sup>, Dr Nino Jose Mateo<sup>4</sup>, Dr Yin Nwe Soe<sup>1</sup>

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Background: ASSIST is a school-based, peer-led smoking prevention intervention developed in the UK. Influential students ('peer supporters') are selected by classmates to spread anti-smoking messages. The aim of the ASSIST Global trial is to adapt and test the intervention in Indonesia and the Philippines. The qualitative work reported here is part of the trial process evaluation which aims to assess the trial methods and intervention acceptability and feasibility.

Methods: Semi-structured interviews (n=40) and focus group (n=18) data were gathered from peer supporters (PS), non-peer supporters, ASSIST trainers, school staff and parents across 10 schools per country. The data were analysed using a thematic framework approach. 20% of 58 English-translated transcriptions per country were double coded, each country additionally double-coded 20% of mother-tongue transcriptions.

Results: Analysis is currently underway and will be completed by March 2025. Initial findings indicate overall support for the intervention. Positives: effective peer PS training sessions, high quality trainers, positive intervention impacts on PS of increased confidence, public speaking skills, widening social networks and extra-curricular participation were reported. Negatives: difficulties completing the PS nomination questionnaire, challenges logging into the ASSIST website and tensions between ASSIST activities and religious periods (e.g. Ramadan), school assessments and school studies were identified. We noted a theme of PS 'becoming' in a journey characterised by initial surprise and reluctance culminating in ultimate acceptance and role embracement. Potential adaptations to improve intervention acceptability and feasibility include: modifying the PS nomination questionnaire; removing the website login; improving communication between the school and students on nomination outcomes, more clearly emphasising likely personal PS benefits to balance potential negatives and meticulously scheduling ASSIST activities to avoid competing factors.

Conclusion and implications: Initial findings indicate that the ASSIST intervention may be feasible and acceptable with some adaptations. These findings will inform future evaluation design and implementation studies.

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Addressing stigma towards people who use drugs and receive opioid substitution treatment: a participatory leadership approach

### Vicky Carlisle<sup>1</sup>, Jenny Scott<sup>1</sup>

<sup>1</sup>University of Bristol

Background: Stigma is a major barrier in the lives of people who use illicit drugs; it impedes relationships and community integration, and negatively impacts on physical and mental wellbeing. Additionally, people who receive opioid substitution treatment, 'OST' (methadone, buprenorphine) experience overlapping stigmas – both in relation to their identity as a person who uses drugs, and for the medication they receive. This presents barriers to treatment engagement and retention. Stigma is particularly enacted in the pharmacy setting where many people in receipt of OST have to attend daily to have their medication consumption witnessed by a pharmacist.

Methods: We adopted a participatory leadership approach, The Art of Hosting, to first identify research priorities and then develop materials to address stigma in relation to receiving opioid substitution treatment in community pharmacies. This involved one large stakeholder workshop with thirteen people with lived and living experience of addiction stigma and fourteen professionals. We followed this up with a co-production study over three in-person workshops to co-develop anti-stigma materials.

Results: 'Voice of the Voiceless', a group of people with current experience of receiving OST formed from this project and worked with us, and additional partners (Harm Reduction Mother2Mother, Bristol City Council, Bristol Drugs Project, DHI), to co-produce a 'Rights and Responsibilities' booklet to highlight good and less positive practice in pharmacies in relation to receiving OST. The booklet aims to humanise people who receive OST to pharmacy staff in order to reduce enacted stigma and to target internalised stigma through empowering people to advocate for their needs and rights in relation to receiving OST.

Conclusions and implications: The participatory leadership approach we adopted was a successful way of bringing together diverse stakeholders in a way that addressed inherent power imbalances and allowed for the creative exploration of ideas, resulting in a practical tool for dissemination.

❖ Longitudinal clustering of health-risk behaviours and their association with multimorbidity: Evidence from Understanding Society (UKHLS)

**Dr Alisha Suhag**<sup>1,2</sup>, Prof Thomas L Webb<sup>2</sup>, Prof John Holmes<sup>2</sup>
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Background: Leading risk factors for chronic disease – smoking, alcohol consumption, poor nutrition, and physical inactivity (SNAP behaviours) – often cluster in specific combinations within distinct subpopulations. Less is known about how this clustering changes with age or how cluster membership is associated with multimorbidity.

Methods: Using data from Waves 7-13 of the UKHLS (n = 18008), we performed repeated measures latent class analysis to identify clusters of respondents with common patterns of SNAP behaviours over time.

Disease status from Wave 13 was used to assess chronic diseases grouped under six categories and multimorbidity. Logistic regressions examined associations between clusters, socio-demographic characteristics, and disease status.

Results: Seven clusters were identified: Overall low-risk (20.0%), Insufficiently active (18.3%), Poor diet, Insufficiently active (23.2%), Hazardous and Harmful drinkers (10.7%), Hazardous drinkers, Insufficiently active and Poor diet (14.0%), Smokers and Drinkers (5.1%), and Smokers (8.7%). Behaviour patterns within clusters remained largely stable over time. Heavy drinking clusters were predominantly male, while the Overall low-risk and Poor diet, Insufficiently active clusters mostly comprised older women. Unexpectedly, the Overall low-risk cluster had the highest prevalence of multimorbidity, obesity-related conditions, arthritis, and morbid obesity. Smokers had the second-highest prevalence of these conditions and the highest prevalence of respiratory disorders. Both clusters shared a similar socio-economic profile: least likely to be well-educated or belong to higher tertiles of wealth. Conversely, the Hazardous drinkers, Insufficiently active and Poor diet cluster, with the most favourable socio-economic profile, had the lowest disease prevalence.

Conclusions and Implications: This study identified seven clusters of adults with distinct behaviour patterns, socio-demographic characteristics and multimorbidity prevalence. A strong social gradient supported a vulnerability hypothesis, whereby deprived groups suffer disproportionate harm from unhealthy lifestyles despite engaging in fewer risky behaviours. These findings can guide interventions for high-risk subpopulations tailored to their behaviour patterns and socio-demographic profiles.

## ❖ A scoping review of psychological and social factors associated with alcohol use in lower socioeconomic position populations

<u>Sarah Dance</u><sup>1</sup>, Sally Adams<sup>2</sup>, Andrew Weyman<sup>1</sup>, Amy Herbert<sup>1</sup>, Chloe Burke<sup>1</sup>, Netanya Cassidy<sup>1</sup>, Nina Higson-Sweeney<sup>1</sup>, Charlotte Dack<sup>1</sup>

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Background: An 'alcohol harm paradox' exists in which lower socioeconomic position (SEP) groups drink less alcohol than higher SEP groups, but suffer more alcohol-related harms. There has been relatively little health psychology research focused on understanding the context of drinking in lower SEP groups and how this might explain such inequalities. We conducted a scoping review on the association between alcohol use and psychosocial factors in lower SEP groups, to inform the development of targeted interventions.

Methods: We searched five databases: Web of Science (Core Collection), Scopus, Embase (Embase and Medline), PubMed, and APAPsycNet (PsycInfo). We screened 5565 articles at title/abstract, and 359 articles at full text, from which we included 21 articles. Four additional articles were included from searching reference lists of included studies. 25 total studies were synthesised narratively, and identified factors were categorised.

Results: We identified 17 quantitative and eight qualitative studies. There was evidence for associations between alcohol use and poor mental health, exposure to stress, coping drinking motives, cognitive factors, and adolescence factors. There was mixed evidence for associations between alcohol use and alcohol availability.

Conclusions and Implications: A wide range of psychosocial factors have been investigated in relation to alcohol consumption in lower socioeconomic position populations. Although, factors predominantly focus on mental health, stress, and drinking motives. In alignment with health intervention development frameworks, the development of targeted alcohol public health intervention approaches could be facilitated by targeting identified factors, such as increasing awareness about the association between alcohol use and poor mental health. However, the factors identified in the current literature may reflect a phenomenon termed the

'medicalization of poverty', in which the consequences of poverty are targeted rather than the root causes. Methodological limitations of the literature (e.g., heterogeneity in measurement of socioeconomic position, correlational study designs) represent areas for future development.

## E1 Symposium - Co-designing, implementing and evaluating interventions with children and young people using the person-based approach: challenges and recommendations

**Convenor:** Sarah Denford<sup>1</sup> **Discussant:** Dr Sarah Bennett<sup>1</sup>

<sup>1</sup>University of Bristol

Intended audience: Behavioural science researchers who have an interest in co-production and participatory research with young people from under-represented groups.

Purpose: To explore and discuss challenges and effective ways of working with children and young people from diverse backgrounds to co-design, implement and evaluate public health interventions using personbased approaches.

Objective: 1) To illustrate how children and young people have been engaged in intervention development projects using person-based approaches; 2) To highlight successes and challenges faced during the co-design and evaluation of interventions with children and young people in various settings; 3) To facilitate discussion about future applications and developments for co-design with children and young people.

Rationale: Co-design approaches are critical for ensuring that the views and perspectives of the target audience are included and accommodated in the design, development and implementation of interventions. This necessitates developing ways of working with target audiences that suit their needs and reflect their preferred communication and engagement approaches. As the inclusion of children and young people is often limited in research and public health, flexible and adaptive ways of working with this group are needed.

Summary: This symposium will include four presentations illustrating challenges and successes of working with children and young people when co-designing interventions for public health. The first presentation will discuss novel and innovative ways to maximise recruitment and inclusion of diverse participants when doing co-production within very short time frames for emergency responses. The second presentation will discuss ways of working with children with cystic fibrosis to co-develop an intervention to support engagement in physical activity, reflecting on recruitment and retention issues, and engagement strategies. The third presentation describes approaches to engage with young people during the development and implementation of the EDUCATE lesson plan to support uptake of the human papillomavirus (HPV) vaccine. The final presentation will describe and reflect on recruitment challenges during evaluation, and enhancing online engagement among teenagers living with acne.

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Engagement in rapid behavioural science research among young people from underserved communities: maximising opportunities and overcoming barriers

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<u>Sarah Denford</u><sup>1</sup>, Lydia Holt, Rosie Essery, Joanna Kesten, Christie Cabral, Dale Weston, Jeremy Horwood, Matthew Hickman, Richard Amlôt & Lucy Yardley

<sup>1</sup>University of Bristol

Background: Inclusion in research of young people from low-income households and those from minority ethnic groups remains low. There is we need to extend existing best practice for intervention development by establishing better methods of rapidly co-producing public health interventions and messaging to support all population groups to protect themselves and their communities. The aim of this work was to identify novel and innovative ways to maximise recruitment and inclusion of diverse participants when doing co-production within very short time frames for emergency responses.

Method: We conducted interviews with young people from low-income and minority ethnic backgrounds, and members or leaders of groups or organisations supporting or representing young people from underserved communities. Participants were recruited through social media, community groups, hostels and charities in Bristol. Data were analysed using reflexive thematic analysis.

Results: Participants included 30 young people from low income or minority ethnic backgrounds and 12 community leaders/service providers. Of the 30 young people, 26 participants identified as female and 12 participants identified as being from a minority ethnic background. Participants discussed a number of interrelated barriers to research involvement and identified ways in which barriers may be reduced. Prejudice and discrimination experienced by young people from underserved communities has led to substantial mistrust of educational and governmental establishments. Rigid and unfamiliar research practices further limit the involvement of young people. Four themes were identified as ways of supporting involvement, including: making opportunities available for young people, adaptations to research governance, understanding and acknowledging challenges faced by young people, and ensuring reciprocal benefits.

Conclusion and implications: This research discusses significant barriers to engagement in rapid public health co-production. Working with communities to co-produce rapid recruitment and research procedures that suit the needs, contexts, and communication preferences of the young people is essential.

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## Supporting physical activity among families of children with cystic fibrosis: The development of a novel intervention using a Person-Based approach

**Dr Anastasiia G Kovalenko**<sup>1</sup>, Sarah Denford, Samantha B van Beurden, Emma Cockcroft, Vicky Coxhead, Owen W Tomlinson, Emma Powell, Craig A. Williams <sup>1</sup>University of Bristol

Background: Cystic Fibrosis (CF) is an inherited condition affecting approximately 150,000 people globally. Physical activity (PA) plays an important role in CF management. Despite the recognised physical, psychological, and social benefits, only about one-third of young people (both with and without CF) meet the UK Chief Medical Officer's recommended PA levels. This study aimed to develop an intervention, using the Person-Based Approach, to support families with children 6-12 years with CF in establishing sustainable PA habits, potentially promoting long-term PA engagement.

Methods: The Person-Based Approach was employed to create and iteratively refine the intervention. Initial content was based on relevant theory (SDT, COM-B) and literature, and co-produced with a Patient and Public Involvement (PPI) group (n=8) with lived experience of CF. Optimisation involved real-time (think-aloud) and retrospective interviews with young people with CF and their families (n=6), assessing the acceptability and practicality. Think-aloud interviews were pragmatically coded and tabulated to prioritise changes. Retrospective interviews were analysed using reflexive thematic analysis.

Results: The co-developed intervention, guided by the Logic Model and the Guiding Principles, was delivered as a printable PDF file. It promoted PA as an enjoyable and achievable family activity. Emphasis on PA as a "medicine" was intentionally avoided. The intervention was considered to be engaging and acceptable; although some changes, such as length of text, were required and were further addressed.

Conclusions and Implications: This study demonstrated the utility of a theory, evidence and Person-Based Approach, incorporating literature, qualitative methods, PPI and behavioural science theory in designing a family-focused intervention to support PA in daily routines for families managing CF. The intervention was well-received, showing it may help sustain PA behaviour. Future research needs to explore the effectiveness

of the intervention for increasing PA behaviour. This work highlights the importance of involving families at every stage of CF management.

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## Co-production and implementation of the EDUCATE lesson to support young people to make informed decisions about the Human Papillomavirus (HPV) vaccine

<u>Harri Fisher</u><sup>1</sup>, Suzanne Audrey, Tracey Chantler, Matthew Dominey Karen Evans, Adam Finn, Lizzie Henden, Matthew Hickman, Joanna Kesten, Louise Letley, Sandra Mounier-Jack, Alix Towson, Clare Thomas, Katie Worthington, Julie Yates

<sup>1</sup>University of Bristol

Background: The English schools-based human papillomavirus (HPV) vaccination programme is routinely offered to all young people aged 12–13 years, to prevent cancers affecting both men and women. Unmet information needs among young people about the HPV vaccine have been identified, which may contribute to declines in uptake. We report the planning and development procedures to co-produce, and processes to support the subsequent implementation, of the EDUCATE lesson.

Methods: We used co-production research methodologies and the 'person-based approach' involving: (i) collating and analysing primary and secondary evidence; (ii) developing guiding principles; (iii) undertaking a behavioural analysis; (iv) development of a preliminary logic model; (v) co-production of resources, and; (vi) refinement of resources.

Five secondary schools supported implementation of the EDUCATE lesson. Networking with key stakeholders helped identify policy levers to encourage use of the EDUCATE lesson, and to enhance understanding of how wider scale and sustained impact could be achieved.

Results: The EDUCATE lesson was co-produced with young people and key stakeholders and comprises a PowerPoint presentation, interspersed with five short films and a guidance document for professionals delivering the lesson. Following feedback, the content of the EDUCATE lesson was refined to increase acceptability, engagement, and persuasiveness to the target users.

During implementation, the EDUCATE lesson was positively received by school staff and young people engaged well during the lesson. Through stakeholder networking, the EDUCATE lesson was adapted and made freely available in the public domain through the Personal, Social, Health and Economic (PSHE) Association website.

Conclusions and implications: Engagement with young people and key informants was integral to the development of the EDUCATE lesson to address young people's information needs about the HPV vaccination programme. EDUCATE has the potential to change practice by enhancing information provision about the HPV vaccine in schools and supporting young people nationally to make informed decisions.

### Recruitment and engagement in the Acne Care Online Randomised Controlled Trial: early challenges and lessons learned

Rosie Essery<sup>1</sup>, Mary Steele, Julie Hooper, Rebekah Le Feuvre, Seb Pollet, Stephanie Easton, Nick Francis, Taeko Becque, Paul Little, Lucy Yardley, Beth Stuart, Matthew Ridd, Kim S Thomas, Alison Layton, Sinéad Langan, Andrew Thompson, Mahendra Patel, Adam Yates, Tracey Sach, Sophie Dove, Kate Henaghan-Sykes, Irene Soulsby, Miriam Santer, Ingrid Muller

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Background: Acne is common among teenagers and young adults, often negatively affecting physical and mental health. We developed the Acne Care Online digital behaviour change intervention to support self-management and improve acne-related quality of life. We are currently evaluating its effectiveness in a randomised trial employing multiple recruitment routes. Here we report reflections on recruitment challenges and attempts to understand and enhance participants' online engagement.

Methods: Recruitment of 13-25 year-olds with acne is underway, randomising to new intervention or existing online resources. We aim to recruit n=588 participants by September 2025; half from primary care mailouts/SMS, and the remainder through school and college mailouts, social media advertising, and opportunistic community pharmacy recruitment. Alongside quantitative usage data, early qualitative interviews with participants (n=7 to date) explored engagement with Acne Care Online, focusing on barriers to effective engagement, especially amongst those with minimal use. Initial rapid analysis of interview field notes identified recurring issues, with further in-depth thematic analysis planned.

Results: Recruitment is progressing well (n=155) with primary care mail-outs yielding highest numbers. However, primary care recruitment has provided limited representation of young men, under 16s and people from lower socioeconomic backgrounds. Other routes demonstrate greater diversity but not without challenges: targeted social media advertising is costly, and setting up school/college and pharmacy recruitment is time-consuming. Whereas school recruitment is proving valuable in recruiting 13-15 year-olds, community pharmacy recruitment remains very limited despite significant efforts. Early insights from usage data and participant interviews indicated the need for minor changes to the presentation of initial online pages and the timing and wording of reminder messages to maximise effective engagement.

Conclusions and Implications: Setting up multiple trial recruitment routes has proven challenging and time-consuming, but appears to be maximising diversity of participant characteristics. The minor changes indicated from early process interviews have improved engagement.

### **E2 - Screening and Primary Care**

## What is the Role of Tuberculosis Stigma in Testing and Treatment Uptake for Tuberculosis Infection? A Systematic Review

**<u>Dr Ayşenur Kılıç</u>**<sup>1</sup>, Zona Zhou<sup>1</sup>, Dr Zoe Moon<sup>1</sup>, Dr Yohhei Hamada<sup>2</sup>, Trinh Duong<sup>3</sup>, Charlotte Layton<sup>3</sup>, Sobhash Jhuree<sup>4</sup>, Prof Ibrahim Abubakar<sup>2</sup>, Prof Molebogeng X. Rangaka<sup>2,5</sup>, Prof Robert Horne<sup>1</sup>

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Background: Tuberculosis (TB) stigma may be a barrier to engagement in testing and treatment for TB infection (TBI; AKA latent tuberculosis infection). Current evidence primarily explored the impact of TB stigma on active TB disease or mixed TB populations and did not specifically address its effect on TBI. We systematically reviewed the available evidence on the potential influences of TB stigma on TBI testing and treatment.

Methods: Seven electronic databases (e.g., CINAHL, Central, OVID) were searched from 1963 to 1st August 2024 by two independent reviewers. A mixed-methods systematic review with studies including quantitative, qualitative and mixed-methods designs was carried out to explore the effects of TB stigma on engagement with TBI testing and treatment. While quantitative studies are descriptively reported, qualitative studies are summarised through thematic analysis. The mixed methods appraisal tool was used to assess the risk of bias.

Results: In total, 17 studies were included in the review with 12 qualitative, four quantitative and one mixed method. TB stigma was a complex construct with six overlapping domains: public, anticipated, self, experienced, secondary and structural. Results indicated that perceptions or experiences of TB stigma were linked to lower engagement in testing and adherence to treatment in TBI.

Conclusions and implications: Perceptions of TB stigma among people with TBI were related to the common social representation of TB disease such as its being contagious or disease of the poor. Negative perceptions of active TB appear to carry over to its infection, despite people being informed about the nature of TBI. Our findings could inform more effective communication to support TBI testing and treatment engagement.

# Experience-based co-design of an active case finding service for colorectal cancer in community pharmacies: findings from a focused ethnography

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Background: Colorectal cancer (CRC) is the second leading cause of cancer-related mortality in the UK. Socioeconomic deprivation is strongly associated with delayed diagnoses and poorer outcomes. Community pharmacies, highly accessible within underserved areas, represent a key opportunity to address these health disparities. The DETECT-CRC study sought to develop a pharmacy-based active case-finding (ACF) service for CRC in underserved communities across Yorkshire, UK.

Methods: The study employed a modified Experience-Based Co-Design (EBCD) methodology to inform service development. Over five months, four co-design workshops were conducted with pharmacists, general practitioners (GPs), patients, and community representatives. A focused ethnography was embedded within

this process, encompassing informal interviews and workshop observations. Field notes were thematically analysed to identify core considerations shaping the service's design.

Results: Three principal themes emerged:

- 1. Utilising community pharmacy strengths: Emphasising accessibility and the potential to build trust.
- 2. Advancing inclusive practice: Addressing issues such as privacy, cultural appropriateness, health literacy, and emotional factors.
- 3. Enhancing service integration and quality: Prioritising collaboration between pharmacies and GPs, alongside the provision of targeted training for pharmacy staff.

These themes underpinned the creation of a comprehensive ACF service model, including multilingual patient-facing materials, a tailored training programme for pharmacy staff, and structured communication protocols for GP engagement. The co-design approach ensured the model was grounded in the needs and perspectives of the target communities.

Conclusion & Implications: The DETECT-CRC study presents a co-designed ACF model for CRC detection within underserved areas, demonstrating potential to mitigate health inequalities and enhance early diagnosis. This aligns with the NHS Long Term Plan's objective to achieve 75% of cancer diagnoses at stages 1 or 2 by 2028. Although further research is necessary to assess its effectiveness, this approach offers a scalable framework for improving CRC outcomes and could be adapted to address other health contexts.

Qualitative process evaluation of a behavioural intervention package to identify and amend incorrect penicillin allergy records in UK general practice

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Background: About 6% of the UK population has a record of penicillin allergy but fewer than 10% of these are truly allergic. As a result, a significant portion of the population are potentially restricted access to first line antibiotics. The ALlergy AntiBiotics And Microbial resistAnce (ALABAMA) trial aimed to determine if a penicillin allergy assessment pathway (PAAP) was safe and effective at de-labelling patients with incorrect allergy records. The ALABAMA trial included a behavioural package to encourage referral to and attendance at PAAP and prescription and consumption of penicillin following de-labelling.

Methods: As part of the process evaluation embedded in the ALABAMA trial, we conducted interviews with patients in the PAAP arm and healthcare professionals (HCP) involved in the trial. Interviews explored patients and HCP experiences of the intervention and subsequent behaviour. Data from interviews were analysed using thematic analysis.

Results: Patients (n=28) felt the testing process was thorough and safe. Consequently, most trusted their negative test result, and where applicable, had taken penicillin when prescribed by their GP. However, two patients were unconvinced about the test result after experiencing symptoms which they mistook for an allergic reaction. Some patients wanted more communication with their general practice to confirm the change in allergy status. HCP (n=18) believed incorrect penicillin allergy patients posed individual and public

health risks. However, labels were rarely independently challenged in general practice because perceived risks were too great. The PAAP intervention, and the 'protocolisation' of the ALABAMA trial were successful at mitigating these risks. Consequently, the trial was well-accepted and commended by HCP.

Conclusions and implications: Our results provide insights on which factors influenced clinician de-labelling and prescription of penicillin, and patients' acceptance of change in allergy status and consumption of antibiotics, in order to facilitate future implementation planning of PAAP.

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Co-use of benzodiazepines and opioids in the UK: a qualitative study on motivations for co-use, patterns of co-use and overdose prevention behaviours

<u>Dr Hannah Family</u><sup>1</sup>, Dr Gaby Vojt<sup>1</sup>, Hannah Poulter<sup>2</sup>, Dr Chris Bailey<sup>3</sup>, Dr Damiana Cavallo<sup>1</sup>, Dr Sara Karimi<sup>3</sup>, Dr Ana-Paula Abdala Sheikh<sup>1</sup>, Prof Matthew Hickman<sup>1</sup>, Prof Graeme Henderson<sup>1</sup>, Dr Jenny Scott<sup>1</sup>, Dr Jo Kesten<sup>1</sup>

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Background: Drug overdoses (OD) have substantially increased over the past decade in the UK, particularly in Scotland. Co-using prescribed and/or illicit opioids and benzodiazepines or z-drugs [BZ/z-drugs] contributes to overdose (OD) risk. It is, however, unclear why and how people co-use, and what strategies people use to minimise OD risk.

Methods: Forty-eight semi-structured interviews were conducted with people who co-use opioids and BZ/z-drugs in community settings in Glasgow (n=28), Teesside (n=10) and Bristol (n=10). Most identified as male (77%), white British, Scottish or English (94%) with a mean age of 43 years. Eighteen (38%) interviews were (co-)facilitated by qualitatively trained local peer researchers. Reflexive thematic and framework analysis were used.

Results: Participants' motivations mapped onto functional and experiential motivations. Functional motivations included augmentation, self-medicating mental health symptoms and trauma and being able to generate income. Experiential motivations were (1) buzz, (2) glow, (3) feeling 'gouchy' and (4) oblivion. These were linked to six co-use patterns: (a) low-dose BZ/z-drugs (am and pm), (b) coming down with street BZ/z-drugs (am and pm, various doses), (c) co-use throughout the day (regular, high doses), (d) BZ/z-drugs/opioid binges (irregular, high doses), (e) curated co-use (structured, controlled) and (f) BZ/z-drugs use throughout the day (BZ unstructured, opioid use structured). Overdose risk perceptions ranged from self-efficacy driven 'I can help myself' to self-efficacy-lacking evaluations 'there is nothing I can do'. Perceived lack of tailored support for co-use reinforced beliefs of help- and hopelessness. People expressing high self-efficacy employed their own risk reduction strategies, e.g., using a trusted seller, limiting alcohol co-use.

Conclusions and Implications: Tailored harm reduction, and mental health support for people who co-use is desperately needed. Our findings identify opportunities for psychosocial and prescribing interventions tailored to people's motivations and patterns of co-use that build upon their existing harm reduction behaviours and OD risk perceptions.

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### Developing a digital intervention to support new pharmacy-led services to manage common infections

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Background: In 2024 NHS England introduced the Pharmacy First and Independent Prescribing Pathfinder services whereby community pharmacies manage common infections to reduce demand on general practice. These services require pharmacists to carry out consultations and decide on infection management, including whether to supply antibiotics. This study aimed to develop a digital intervention to support pharmacists in delivering these services and to promote antimicrobial stewardship.

Methods: Using the person-based approach, a digital intervention was co-developed with patient and public contributors to support pharmacists, incorporating consultation training, a diagnostic aid, point-of-care testing, and patient leaflets. Think-aloud interviews with pharmacists (N=22) and members of the public (N=16) helped optimise the intervention. Potential changes were collated and prioritised using the Table of Changes. Interviewing ceased when no further significant changes were identified. Guiding principles were established to enhance engagement, and psychological theories were combined to create a logic model to support pharmacists and enable patients to self-care for their infection.

Results: Pharmacists expressed lacking confidence in making antibiotic prescribing decisions and welcomed evidence-based guidance on when antibiotics were appropriate. The intervention offers clear recommendations based on NICE guidelines and research evidence, and advises use of point-of-care tests for specific infections based on decision aid criteria. Concerns around consultation efficiency led to the inclusion of training videos and advice on consultation structuring. Pharmacists wanted support for conversations with patients requesting antibiotics to provide patients with reassurance on the management decision and explain antimicrobial resistance. The intervention includes patient-facing leaflets to support these discussions and enable self-management.

Conclusions and implications: Pharmacists are motivated to adopt these new services but can benefit from additional support for consultations, management decisions, and time efficiency. A user-friendly digital intervention could enhance their confidence, improve patient adherence to treatment recommendations, and support appropriate antimicrobial dispensing.

#### E3 - Women's Health

Warwick, Warwick, UK, <sup>7</sup>Patient and Public Representative

Combining interview and survey data to include views from a diverse range of participants: Women's experiences of an assets-based peer support intervention (ABA-feed) for increasing breastfeeding initiation and continuation

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Background: Women value breastfeeding peer support, but UK trials have not demonstrated efficacy in improving breastfeeding rates. The ABA-feed trial tested the ABA-feed intervention at 17 UK sites. The intervention offers pro-active peer support to first-time mothers, regardless of feeding intention. Starting antenatally, the intervention is underpinned by behaviour change theory and an assets-based approach. This study aims to explore experiences of the different intervention components among women with a range of feeding intentions and demographic characteristics

Methods: Semi-structured interviews were conducted, via telephone, with women at five UK sites. Participants were purposively sampled to include a range of feeding intentions and demographic characteristics. Additionally, women at all 17 study sites were sent a survey 8-weeks postnatally, including two open-text questions on feeding difficulties and experiences of support. Interviews were recorded and transcribed and data analysed using thematic framework methods. Open-text data from women receiving the intervention were coded using the same framework, and coding summaries produced both overall and for subgroups including age, education level, ethnicity, relationship status and feeding intention. Open-text and interview coding summaries were compared.

Results: Thirty women participated in an interview; 1,142 women provided open-text data. Interview data identified that most women received the intervention with fidelity; found the intervention acceptable, valued the continued, proactive contact starting antenatally; and appreciated the woman-centred support enabling them to draw on social support and local assets. Open-text data analysis confirmed the findings of the interview data analysis, providing evidence that the intervention is largely acceptable across groups including younger women, single women, women from ethnic minority groups, women with different feeding intentions and different education levels.

Conclusions/Implications: Findings provide insights into women's experiences of the ABA-feed intervention. The combination of in-depth interview and open-text survey data enables confirmation of intervention acceptability among a diverse range of participants.

Findings from the C-POP Study: exploring the acceptability and feasibility of a future clinical trial comparing two vaginal surgeries for the treatment of apical pelvic organ prolapse

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Background: Vaginal surgical management options for apical pelvic organ prolapse (APOP) in older women include colpocleisis and sacrospinous fixation (SFF). Key uncertainties remain about the comparative effectiveness of these two vaginal surgical options. The C-POP study aimed to explore the feasibility and acceptability of conducting a future randomised controlled trial (RCT) comparing the effectiveness of colpocleisis with SSF in women with APOP.

Methods: The C-POP study employed multi method feasibility design aligned with the 2021 MRC/NIHR Framework for Developing and Evaluating Complex Interventions. Recruited via 15 NHS sites across the UK and non-NHS pathways, we undertook qualitative semi-structured interviews with women with APOP and with healthcare professionals (HCPs) who care for women with APOP. Interviews were audio-recorded, and transcripts analysed using a hybrid deductive-inductive thematic analysis approach. A descriptive analysis of clinical records facilitated the estimation of the number of patients potentially eligible for a future RCT. We also ran a national stakeholder workshop at which the study findings were presented for reflection and to identify future actions.

Results: A diverse sample of 54 women and 28 HCPs were interviewed. Neither women nor HCPs felt that randomisation was acceptable. Women wanted to maintain control of their decision-making, had strong preferences for the type of surgery, and trusted HCPs to suggest the most appropriate surgical intervention. HCPs based surgical decisions on patient age, perceptions around maintaining sexual function, frailty and comorbidities. 143 women, via 14 recruiting sites, contributing a total of 62 months of data, were identified as potentially eligible for a future RCT.

Conclusions and Impact: A future RCT comparing colpocleis with sacrospinous fixation is neither acceptable nor feasible for this study population. Future studies should consider observational designs or approaches that incorporate patient preferences, providing a research framework more in line with patient and healthcare professional expectations.

Self-silencing in the 21st Century: still associated with conformity to feminine norms and depression in young women

#### Dr Alison Bacon<sup>1</sup>

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Background: Silencing-the-Self (STS) describes a relational strategy employed by some women to avoid confrontation and maintain intimacy and safety in relationships. STS has been linked to depression and a range of physical health symptoms and disorders. STS was first conceptualised in the 1980s and related to a perceived need to conform to societal expectations of women at the time. In this study we revisit this premise to investigate the extent to which depression may be explained by STS linked to conformity today. If the original premise holds, we expected to observe a mediating effect of STS on the relationship between conformity and depression.

Methods: A non-clinical sample (N = 314; Mean age = 19.60, SD = 1.37) completed an online survey comprising measures of depression, conformity to feminine norms and STS. Relationships between variables was analysed through bivariate correlation, linear regression on depression, and mediation analysis conducted using the PROCESS macro for SPSS.

Results: Depressive symptoms were associated with conformity to norms relating to thinness, domesticity, appearance, relationships and modesty, and all STS subscale scores were associated with depression (p < .001 in every case). Externalised self-perception (ESP; judging the self through external standards) mediated the direct effect of conformity to thinness norms on depression,  $\beta = .18$ , [.10, .27].

Conclusion: Despite women aged 18-25 having grown up in an era when women have more rights and social freedoms than ever before, a perception of need to conform to some traditional feminine ideals remains. The present study suggests these may relate particularly to appearance and may reflect exposure to influences such as social media. This conformity, may lead to higher levels of depression, mediated by ESP. As self-silencing is a cognitive schema developed as a result of social experiences, it may be amenable to intervention.

## Ways to improve addressing female genital mutilation/cutting (FGM/C) in Scotland: a soft systems approach

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Background: Addressing FGM/C is complex, involving culture, health, and rights. Existing strategies have provided necessary services to affected women but have also had the unintended consequence of stigma and harassment for affected communities.

This study was a novel application of soft systems methodology (SSM) to FGM/C, aiming to build understanding of addressing FGM/C in Scotland, and to co-create with stakeholders recommendations for improving the situation.

Methods: We recruited 23 stakeholder participants from the 3rd (Community groups and Non-Governmental Organisations NGOs), and the statutory sector (Health care, Social work, Police, Scottish Children's Reporter Administration SCRA, and Education).

20 interviews and 7 workshops were conducted to build understanding of the situation and to identify feasible and acceptable ways to improve it.

Qualitative analysis identified the SSM purposeful activity systems present, and models of these were used to structure stakeholder discussion to find ways for improvement.

Results: Firstly, a 'rich picture' of key issues including the stakeholder priorities of awareness raising, health care provision, and child protection; and challenges of a poor understanding of FGM/C in services, and communities feeling that their voice was not heard. Secondly, the key feasible and acceptable ways to improve the situation were found to be collaboration across stakeholder groups, and creating a standardised framework for community engagement and service training. Thirdly, system maps were created to demonstrate how both the challenges and the ways to improve the situation were interconnected across stakeholder groups.

Conclusions and Implications: This novel application of soft system methodology to researching female genital mutilation/cutting synthesised findings form a wide stakeholder base and defined a cohesive way to

improve how the issue is addressed. Greater stakeholder collaboration and a standardised training approach were found to be key. This requires strategic capacity building support for communities and maintaining bridges between all stakeholders.

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## "It's kind of isolating because you're on your own private journey": a qualitative exploration into the experience of menopause in a US workplace

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Background: This research set out to uncover experiences of menopause in the workplace and to enhance workplace strategies to better support midlife women.

Methods: Semi-structured interviews were conducted as part of a larger mixed-methods study. Eligible participants were selected by purposive sampling from respondents to an online survey circulated to all US-based employees of pharmaceutical company Pfizer Inc. Interviews explored attitudes towards menopause, experiences of symptoms and changes, perceptions of support available, coping strategies, and challenges associated with menopause in the workplace. Inductive thematic analysis was conducted to identify themes and patterns in the data.

Results: Eighteen women took part. Analysis uncovered five themes: (1) menopause as a uniquely personal experience: the diversity of the menopause experience, including symptom impact, the context of the working environment, and desire for support; (2) identity reframed by menopause: the female midlife identity, its associations with aging, and (for some) empowerment, confidence and wisdom; (3) the impact on professional standing: views on professional capabilities and perceptions from colleagues and management, impacting confidence and anxiety; (4) the burden of managing menopause: efforts undertaken by women to manage and mask menopause symptoms, with many sharing experiences of uncertainty and lack of control related to unpredictable nature of symptoms; and (5) feeling safe enough to share: participants' experiences of navigating disclosure with colleagues or managers and desire for more awareness and understanding.

Conclusions and implications: Women's experiences of the menopause transition in a work context are highly personal and "one size does not fit all." Employers should consider the emotional burden and impact of menopause on self-confidence in the workplace and provide resources that help educate employees and support those navigating this midlife transition. Among other activities, Pfizer developed an internal podcast series to help educate and support colleagues on navigating menopause in the workplace.

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### E4 Symposium - Promoting inclusive research with older adults: strategies, challenges, and best practices

**Convenors:** Dr David Maidment, Loughborough University & Prof Debi Bhattacharya, University of Leicester **Discussants:** Dr Caroline Smith<sup>1</sup>, Dr Jacqueline Martin-Kerry<sup>1</sup>, Dr Maria Goodwin<sup>2</sup>, Dr Katelynn Slade<sup>3</sup> <sup>1</sup>University of Leicester, <sup>2</sup>Aston University, <sup>3</sup>Loughborough University

This session is for anyone with an interest in undertaking inclusive research with under-served populations, such as those with differing needs, including sensory and physical disabilities and chronic health conditions.

Purpose: The purpose of this symposium is to explore the principles, methodologies, and practical approaches for conducting inclusive research with older adults. It aims to bring together researchers and healthcare professionals to share their experiences, discuss challenges, and highlight effective strategies for engaging older adults in research that respects their diverse needs, perspectives, and capabilities.

### Objectives:

- 1. To discuss ethical considerations about the importance of developing inclusive research process to support meaningful involvement of older adults.
- 2. To describe best practices and innovative approaches for involving older adults in research across various settings, as well as identify common barriers to participation in this population.
- 3. To foster dialogue and convene a working group to develop best practice recommendations for supporting inclusive research to improve health, wellbeing, and quality of life for older adults.

Rationale: The global population is aging rapidly, and older adults are often underrepresented in research, especially those with complex needs or from diverse backgrounds. Inclusive research is essential so that it accurately reflects the experiences, preferences, and challenges faced by older adults. However, involving this demographic in research can be challenging and often requires tailored strategies to accommodate varying needs to ensure that participation is meaningful and impactful.

Summary: This symposium will feature a series of presentations and discussions led by experts in the field of ageing, health, and social care. Topics will include addressing barriers to inclusion and ethical considerations when involving older adults in research. Throughout the symposium, attendees will gain insights into practical strategies for conducting inclusive research with older adults, with a focus on enhancing engagement and the translation of research findings into real-world impact.

Facilitating primary care healthcare professionals to proactively manage oropharyngeal dysphagia in older adults: co-design of a theory and evidence-based behaviour change intervention

**<u>Dr Caroline Smith</u>**<sup>1</sup>, Prof Debi Bhattacharya<sup>1</sup>, Dharinee Hansjee<sup>2</sup>, Dr Sion Scott<sup>1</sup>, <sup>1</sup>University of Leicester, <sup>2</sup>University of Greenwich

Background: 30% of older adults in primary care experience swallowing difficulties, oropharyngeal dysphagia (OD). However, OD is rarely undiagnosed until a hospitalisation. This work co-designed a primary care Healthcare Professional (HCP) behaviour change intervention to prevent harm occurring from OD.

Methods: Alongside PPI advisors, primary care HCPs, geriatricians and speech and language therapists, the target behaviours were defined. Working with this group, a realist review of OD interventions was undertaken to identify the behavioural mechanisms by which HCPs may be supported to undertake the target behaviours. Focus groups with HCPs further explored these behavioural mechanisms and workshops with HCPs and PPI advisors designed the intervention to address these behavioural mechanisms.

Results: The stakeholder group agreed primary care HCPs should be able to proactively identify potential OD. However, PPI advisors expressed that identifying OD alone was not sufficient and that they expect HCPs to provide some level of support prior to the patient seeing an OD specialist. Therefore, a second target behaviour, provide advice for those with suspected OD, was defined.

The realist review and focus groups identified nine behavioural mechanisms for the intervention to address. To support primary care HCPs to undertake the target behaviours, the designed intervention comprised; an elearning training module including video case studies of patient experiences, OD questions integrated into clinical systems, a directory of OD specialists' contacts, an OD advice leaflet for patients, a pop-up in the clinical system and a national OD dashboard.

Conclusions and implications: Working with PPI advisors and HCPs enabled the design of a behaviour change intervention which is likely to be acceptable and relevant to primary care HCPs. The next step would be to coproduce and test the intervention to determine its feasibility and, subsequently, its efficacy to change healthcare professionals' behaviour.

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## Methodological considerations for supporting older adults to contribute to core outcome set development

<u>Dr Jacqueline Martin-Kerry</u><sup>1</sup>, Dr Jo Taylor<sup>1</sup>, Dr Sion Scott<sup>1</sup>, Dr Martyn Patel<sup>3</sup>, Prof David Wright<sup>1</sup>, Dr Allan Clark<sup>4</sup>, Dr David Turner<sup>4</sup>, Prof David Phillip Alldred<sup>5</sup>, Katherine Murphy<sup>6</sup>, Dr Victoria Keevil<sup>7</sup>, Prof Miles Witham<sup>8</sup>, Prof Ian Kellar<sup>9</sup>

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Background: A core outcome set (COS) is the minimum set of outcomes to be measured and reported in all trials of a particular health condition or area of healthcare to which the COS relates. We developed a COS for hospital deprescribing trials in older adults and reflect on the methodological challenges of including the voice of older adults.

Method: In accordance with COMET guidance, we developed a list of potentially relevant outcomes from the literature. Using a two-round Delphi survey with older people, carers and NHS staff recruited via hospitals, and ageing/deprescribing researchers recruited via professional networks, each outcome was scored according to the 9-point Grading of Recommendations Assessment, Development and Evaluation (GRADE), followed by two online consensus workshops.

Results: From the literature, 49 potentially relevant outcomes were identified and presented in round 1 Delphi. Of 200 Delphi participants, 18 represented patients and carers of whom 15 completed rounds 1 and 2 (12 electronically and 3 by telephone). No, outcomes were agreed during Delphi as not being important for a COS and 4 outcomes added. Participants completing by telephone reported high cognitive burden of rating 49 outcomes on a 9-point scale. The research team removed 6 outcomes for being a compound of multiple outcomes thus 47 outcomes progressed to workshops.

Each workshop included 10 participants (5 older adults/carers) and 6 outcomes were retained in the final COS: number of prescribed medicines stopped; number of prescribed medicines with dosage reduced; quality of life; mortality; adverse drug events; and number of hospital stays.

Conclusions and Implications: Despite providing hospital support costs to recruit older adults, the disparity in recruitment compared with hospital staff suggests that other factors drive recruitment. Pre-Delphi workshops may be appropriate to reduce outcomes progressing to Delphi, thus reducing cognitive burden. Alternatives to GRADE may also support participation.

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### Inclusive research for promoting holistic hearing health in older adults with hearing loss

<u>Dr Katelynn Slade</u><sup>1</sup>, Dr Maria Goodwin<sup>2</sup>, Dr Emily Urry<sup>3</sup>, Dr David Maidment<sup>1</sup> Loughborough University, <sup>2</sup>Aston University, <sup>3</sup>Sonova AG

Background: Older adults with hearing loss face an elevated risk of noncommunicable diseases, including cardiovascular disease and diabetes. Consequently, it is important to enhance the overall health of this population. Hearing healthcare professionals (HHCPs) are well-placed to promote health behaviours in older adults, yet challenges persist in implementing these practices within clinical settings.

Methods: This mixed-methods study explored the perspectives of HHCPs and older adults with hearing loss through semi-structured interviews (n=16). Data were analysed using reflexive thematic analysis to identify key themes. Findings informed a three-round Delphi consensus process involving HHCPs (N=25) to develop practical, evidence-based strategies for promoting health behaviours in clinical appointments.

Results: Older adults demonstrated limited awareness of the connections between hearing loss and health outcomes, often identifying only dementia as a related condition. HHCPs recognised the potential for health promotion but cited hesitancy due to concerns about professional boundaries and causing offense. Delphi participants achieved consensus on the need to promote positive health behaviours and for strategies that emphasise respectful, culturally sensitive communication and interdisciplinary collaboration. Barriers included low digital health literacy among older adults and the need for tailored resources to support health conversations.

Conclusions and Implications: This study highlights the need for inclusive, participant-centred research that bridges knowledge gaps and empowers HHCPs to promote holistic health. Findings suggest that integrating health promotion into routine hearing care can enhance engagement and reduce health disparities. Attendees will gain practical insights into inclusive research methodologies and strategies to improve health outcomes for older adults with hearing loss, aligning with the symposium's focus on meaningful engagement with older adult populations.

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### Reflections on using digital health technology with older adults with hearing loss

<u>Dr Maria Goodwin</u><sup>1</sup>, Dr Katelynn Slade<sup>2</sup>, Dr Emily Urry<sup>3</sup>, Dr David Maidment<sup>2</sup> <sup>1</sup>Aston University, <sup>2</sup>Loughborough University, <sup>3</sup>Sonova AG

Background: Digital health assessment and tracking is an ever-growing area of interest. With the increased use of smartphone technologies amongst older age groups, many interventions to improve health outcomes focus on screening and/or tracking health with digital technologies. The aim of this presentation is to present reflections on two studies with older adults with hearing loss, that incorporated (1) digital health assessment, and (2) digital activity tracking.

#### Methods:

- (1) A cross-sectional study of 64 adults was conducted to explore the use of the World Health Organisation's smartphone application hearing screener (hearWHO) in relation to at home testing during the COVID-19 pandemic.
- (2) A feasibility study of ten older adults who had recently been fitted with hearing aids was carried out to assess the feasibility and acceptability of continuous physical activity tracking using ActiGraph watches (GT9X) over a 6-week period. Data from qualitative interviews, open-text boxes and detailed research notes were analysed to reflect on the barriers of research using technology in this population.

Results: Older adults living with hearing loss require additional support when using smartphone applications remotely. However, delivering this support can be challenging with a population who experience communication difficulties, and video conference calling was not always well received. The inclusion of smartphone apps and remote assessments (via MS Teams) can lead to disinterest and/or refusal to participate, resulting in disparities in the representativeness of the participants included in research. Similarly, additional, remotely provided support was necessary for activity tracking.

Conclusions and implications: Whilst the use of digital health screening and tracking is generally well perceived by participants, some would prefer 'pencil and paper' instead of application. Caution must be applied when using digital health in this population, as there is potential for biased sampling. Researchers and policy makers should consider flexible modes of delivery for older adults when designing targeted public health interventions.

#### **E5 - Health Care Interventions**

### Co-designing cardiovascular disease risk information and support for behaviour change

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Background: Cardiovascular disease (CVD) risk communication occurs through NHS Health Checks, where individuals receive personalised 10-year CVD risk scores alongside strategies for managing risk. However, many individuals leave appointments with a poor understanding of how to reduce their risk or access support. With the NHS piloting a digital version of the Health Check and advancements in causal inference for CVD risk estimation, there is an opportunity to improve patents' risk understanding and behaviour change support, particularly in underserved populations who face the highest burden from CVD.

Methods: We designed a novel approach to presenting CVD risk within an app, informed by a literature review and input from members of the public. Twelve adults in the eligible age range for NHS Health Checks were recruited through online community groups and centres in areas with an Index of Multiple Deprivation of  $\leq 4$  and shown the app section in focus groups. Follow-up interviews gathered reflections on the app and identified preferences for supporting health behaviour changes. Changes were made to the design in response to feedback and later groups were shown an updated version. Data were analysed thematically.

Results: Receiving CVD risk information via an app section was acceptable to participants, who suggested design improvements and identified ways to better meet their support needs. There were knowledge gaps about risk reduction, with participants seeking clearer information on managing CVD risk. They preferred visual materials and personally relatable content.

Conclusions and implications: This study shows the potential of interactive resources to improve patients' understanding of cardiovascular risk management aligned with their personal circumstances. The findings emphasise the need for accessible digital tools and resources that support behaviour change, particularly in underserved populations. Future research should explore strategies to engage individuals who may not adopt digital tools, ensuring inclusivity and equity in cardiovascular disease prevention.

# 'We're all doing very different things': qualitative interview study exploring practitioner perspectives on conceptualising and managing distress in primary care

<u>Dr Hannah Bowers</u><sup>1</sup>, Prof Carolyn Chew-Graham<sup>2</sup>, Prof Miriam Santer<sup>1</sup>, Prof Harm Van Marwijk<sup>3</sup>, Dr Berend Terluin<sup>4</sup>, Prof Tony Kendrick<sup>1</sup>, Prof Paul Little<sup>1</sup>, Prof Michael Moore<sup>1</sup>, Manoj Mistry<sup>1</sup>, Debs Smith<sup>1</sup>, Al Richards<sup>1</sup>, Ms Bronwyn Evans<sup>1</sup>, Dr Nicola Lester<sup>1</sup>, Ms Roya Kolahy<sup>1</sup>, Dr Adam W A Geraghty<sup>1</sup>

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Background: People often present to primary care experiencing emotional distress, which can be difficult to distinguish from psychological disorder. There may be important differences in optimal management of distress in the absence of diagnoses such as anxiety and depression. Currently, the nature of assessment and care is unclear.

Method: We recruited practitioners in a range of roles in primary care using a digital poster circulated via Research Delivery Networks. Interviews exploring perspectives of supporting people experiencing distress in

primary care were conducted online. Transcribed interviews were analysed using an inductive thematic approach.

Results: We conducted 29 interviews (seven General Practitioners (GPs), six Nurse Practitioners, five Social Prescribers, four Mental Health Occupational Therapists, one Pharmacist, one Paramedic, one Mental Health and Wellbeing Coach, and four Mental Health Practitioners) and developed four themes illustrating how distress was conceptualised and managed by primary care practitioners: 'The multifaceted nature of distress', 'We're all doing very different things', 'Managing and understanding distress is challenging', and 'Demedicalising distress in the face of increasing societal pressures'. These themes highlight that 'distress' was considered highly complex and variable, and people experiencing distress were managed in a variety of ways. Management was confounded by systemic challenges such as time-limited consultations for the necessarily longer conversations. Practitioners felt distress should be de-medicalised and patients supported to address the socioeconomic challenges they face. Some GPs suggested that people experiencing distress could be supported by other practitioners in primary care.

Conclusions and implications: Scaling up primary care has created opportunities but also challenges in the management of people experiencing distress. Support was highly variable, but practitioners suggested the need for person-centred and individualised care. De-medicalisation of distress was seen as important to ensure people received appropriate care. Our findings will inform the development of accessible care pathways for people experiencing distress.

A qualitative study of public health professionals' views on alcohol public health interventions

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Background: Alcohol-related deaths are at their highest level for twenty years, with 10, 048 deaths in the UK being directly caused by alcohol in 2022. Significant alcohol-related inequalities exist for lower socioeconomic position (SEP) groups. Lower SEP groups exhibit greater health impacts of alcohol consumption than higher SEP groups, despite drinking less alcohol. This is known as the 'alcohol harm paradox'. There is limited evidence on how effective alcohol interventions for this demographic could be implemented. We aimed to explore the experiences and perspectives of public health professionals on alcohol public health interventions, and the scope for tailored intervention approaches for lower SEP groups.

Methods: In alignment with health intervention guidance on seeking stakeholder perspectives, we carried out semi-structured interventions with 16 public health professionals working on alcohol interventions. The analysis method was reflexive thematic analysis.

Results: We developed three themes. Theme one, drivers of alcohol-related inequality, highlights how alcohol is seen as a symptom of broader psychosocial issues and social norms. Theme two, systemic factors driving public health interventions, highlights how limitations around data availability and organisational capacity act as a barrier in their work. Theme three, holistic community health approach, highlights strategies to develop effective intervention approaches.

Conclusions and Implications: Public health interventions could target the psychological, behavioural and social context of alcohol consumption in lower socioeconomic groups within community-focused holistic approaches. However, systemic barriers related to data and organisational capacity present as barriers to implementation of this approach. Such barriers may be mitigated by implementing recommendations of participants. For example, participants could be provided with increased ability to affect licensing decisions, and increased access to some data (e.g., alcohol-related ambulance rates). Participants also wanted

increased links between services and data between healthcare services, and for there to be increased awareness among the public that alcohol is harmful.

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Self-care and exercise rehabilitation for people with multiple long-term conditions and their caregivers: development of the Personalised Exercise-Rehabilitation For people with Multiple long-term conditions (PERFORM) intervention

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Background: Exercise and self-care support may be clinically effective and cost-effective treatment modes for a wide range of long-term conditions, as they activate multiple beneficial physiological and psychological mechanisms. We therefore aimed to develop a complex intervention to deliver exercise and self-care support for people with multiple long-term conditions.

Methods: Following the Person Based Approach to intervention development, we conducted ten codevelopment workshops with people with multiple long-term conditions ('multimorbidity') and family and friends; healthcare providers; service commissioners and policymakers. The workshops iteratively identified the unmet needs of patients and informed a logic model outlining theoretical mechanisms of change and strategies for intervening to change the targeted behaviours. They also identified ideas for efficient delivery and service providers' training needs. Feedback from a mixed methods process evaluation within the PERFORM feasibility study informed further refinement of the intervention.

Results: Working with a diverse group of stakeholders (26 patients/caregivers, 13 service providers, 16 experts in chronic illness and 14 service commissioners), we developed the PERFORM intervention. This included 16 supervised exercise sessions and 16 "Health and Wellbeing" self-care support sessions, delivered in hospital or community settings over eight-weeks, plus check-in sessions at 4 and 6 months. The self-care sessions covered maintenance of exercise beyond the programme, healthy eating, managing common symptoms (pain, fatigue, breathlessness) and managing stress /low mood. Theoretical underpinnings included: building autonomy/empathy, tailoring to individual needs, self-regulation, building self-efficacy, building a functional 'illness model', facilitating psychological adaptation (finding a new normal), engaging /building social support, cognitive behavioural strategies and mindfulness-based approaches.

Conclusion: The PERFORM intervention is a comprehensive, evidence-informed, theoretically driven self-care and exercise-based rehabilitation intervention, co-developed with patients with multiple long-term conditions, service providers and service commissioners. PERFORM is now ready for evaluation of its effectiveness and cost-effectiveness.

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## ❖ Storytelling for health: a systematic review of the evidence for storytelling interventions to improve health related outcomes in marginalised communities

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Background: Pernicious health inequities for marginalised populations persist, including poor quality health information: not appropriately matched to needs and preferences and / or ineffective in supporting health outcomes. This systematic review explored evidence for storytelling interventions to positively impact health outcomes in at-risk or minoritised populations, and to identify learnings which might usefully inform future work.

Methods: During July 2023, seven electronic databases were searched (AMED, APA PsychINFO, CINAHL Plus, ERIC, MEDLINE, SCOPUS, Open Grey). Included studies evaluated a storytelling intervention amongst a population identified as being marginalised and used a health outcome and/or health behaviour measure. Evidence quality was assessed and framed a narrative analysis structured by intervention aim.

Results: Nine studies are reviewed with participants ranging from n=15 to n=> 920 in a mix of quantitative, mixed methods and qualitative designs. Storytelling interventions included multi-media (video, digital storytelling) and printed items (Fotonovela, posters, storytelling cloth). A mixed picture for effectiveness is presented, with moderate to weak quality evidence that interventions were more likely to be successful when situated within a broader educational framework, when using evidence-based storytelling development processes and/or theory and when delivered by peers. Moderate evidence supported positively-valenced messages being more effective than negatively-valenced messages. Common study design flaws included lack of validated measures and intervention integrity checks. Learnings to inform future evaluations are presented.

Conclusions and Implications: Whilst imitations in research design preclude unambiguous endorsement, this review identified evidence for the effectiveness of storytelling in marginalised populations to support health behaviour change, treatment decision-making and stigma reduction, although not for reducing risky behaviours.

A protocol for this review was registered with the International Prospective Register of Systematic Reviews (PROSPERO) CRD42023433104.

### Emergency Department Opt-Out Blood Borne Virus Testing

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Background: The UK Government aims to achieve zero HIV transmissions and eliminate Hepatitis C and the public health risk of Hepatitis B by 2030. Late diagnosis of blood-borne viruses (BBVs) results in poorer health outcomes and higher transmission risks, with many individuals in the UK remaining undiagnosed. Emergency Department (ED) opt-out testing has proven effective in identifying undiagnosed cases and re-engaging those lost to follow-up. In April 2022, NHS England funded opt-out BBV testing in 34 EDs in very high HIV prevalence areas. The Opt-out testing programme was extended to an additional 47 sites across England in areas of high HIV prevalence in 2024. Patients aged 16 and over undergoing routine blood tests are automatically tested for BBVs unless they opt-out.

Methods: Qualitative interviews to investigate factors affecting the implementation and uptake of ED opt-out testing. Interviews explored staff acceptability, challenges, and strategies to enhance implementation. Findings informed recommendations for expanding opt-out testing to new sites.

Results: Staff generally supported the rollout, with high buy-in reported, although understanding of the project varied. Barriers included insufficient training, challenges with test ordering, workload pressures, and competing priorities. Facilitators included daily handover reminders, staff training, and integrating testing into routine workflows. Few patients opted out of testing, but staff recommended providing more information about testing and BBVs.

Conclusions: EDs are uniquely positioned to offer universal opt-out testing, reaching populations that may not access routine healthcare. Staff support was strong despite varying levels of understanding and implementation challenges. Effective strategies to boost test coverage included reminders, training, and standardised procedures. These findings offer practical recommendations to improve implementation, ensuring broader test coverage in EDs, reducing BBV transmission, and enhancing public health outcomes.

#### **Posters**

### Exploring the overuse of non-sterile gloves in operating theatres: a sequential mixed methods study

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Background: Surgery is a major sources of carbon emissions, particularly due to waste in operating theatres (OTs). One contributor to waste in OTs is unnecessary non-sterile gloves (NSGs) use. The factors influencing the overuse of NSGs in OTs are complex and not well understood. We conducted a mixed-methods study to investigate the behavioural determinants contributing to unecessary NSG use in OTs.

Methods: A mixed-methods design based on the Theoretical Domains Framework (TDF) was employed. In the qualitative phase, semi-structured interviews were conducted with OT professionals from different specialties, and seniority (N=19). Interview transcripts were analysed inductively using framework analysis, then deductively mapped to the TDF. Interview findings informed the design of a national survey, distributed to OT practitioners (including surgeons, nurses and anaesthetists).

Results: Framework analysis generated 6 themes and 17 subthemes (mapped to 10 TDF domains). Pertinent barriers to reducing NSG use included (i) lack of prioritisation by the hospital (Environmental context and resources (ECR)), (ii) lack of incentivisation (Reinforcement), (iii) fear of consequences to self and patients (Beliefs about consequences), (iv) feeling pressured by colleagues (Social influences), (v) alternatives being less accessible (ECR), and (vi) lack of training and low awareness of relevant policies (Knowledge). The survey (N=347) identified a statistically significant difference between job roles, with nurses and anaesthetists reporting using NSGs more often than surgeons (p=<.001). Nurses who wear NSGs unnecessarily stated that they don NSGs without thinking about it(p<.001). Nurses (especially those with under 5 years' experience) and surgeons who wear NSGs unnecessarily felt more competent in their roles when wearing gloves(p<.001 and p=.022).

Conclusions and Implications: The study identified key influences of unnecessary use of non-sterile gloves in operating theatres including: habit, social pressure, and the perception of competency. To effectively reduce their use, multifaceted behavioural interventions are required to address these diverse influences.

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### The Physical Activity Behaviours of People with Premenstrual Dysphoric Disorder: A Scoping Study

**Dr Justine Anthony**<sup>1</sup>, Miss Julie Riddell<sup>2</sup>, Dr Lynsay Matthews<sup>3</sup>

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Background: Physical activity offers potential physiological and psychological benefits for individuals with premenstrual dysphoric disorder (PMDD). However, the severity of symptoms and their impact on daily functioning can make engaging in healthy lifestyle behaviours challenging. Despite these challenges, there is currently no research on the physical activity behaviours of people with PMDD. Research is needed to identify strategies to support individuals with PMDD in participating in physical activity as part of a healthy lifestyle. This study aimed to collect preliminary data to explore the current physical activity behaviours of people diagnosed with or experiencing symptoms of PMDD, while also identifying future research priorities.

Methods: An online survey was administered through Qualtrics and disseminated via existing networks to reach an international audience. The survey included questions on current physical activity levels, modality, duration, and intensity, with consideration of variations across phases of the menstrual cycle. Participants

were also asked, via an open-text response, to provide recommendations on future research priorities. Descriptive statistics will be generated to provide summaries on physical activity modalities, intensities, and durations. Where feasible, changes in physical activity behaviours across different menstrual cycle phases will be examined. Participants' suggestions for future research will be synthesised thematically.

Results: Data collection will be completed by January 2025. We will present our findings as: (i) overall physical activity behaviour of people with PMDD; (ii)identified research questions and priorities; and (iii) acceptability of different research methods.

Conclusions: Findings will provide a novel and timely contribution to the literature by addressing the unexplored physical activity needs and experiences of this underserved population. They align with the various women's health strategies across the UK and address the needs of vulnerable people in need of support. The results will inform the development of targeted recommendations for future interventions to promote and support physical activity engagement.

### The legacy of adverse childhood experiences: subjective age, will-to-live, loneliness and depression in older adults

#### **Dr Alison Bacon**<sup>1</sup>

<sup>1</sup>University Of Plymouth, Plymouth, UK

Background: Later life depression is a major public health issue. Limited evidence suggests that psychological sequalae of adverse childhood experiences (ACEs) may persist into older age, though the underlying mechanisms and mediating factors are poorly understood. This study examines two factors known to be linked to later life depression, subjective age (SA) and will-to-live (WTL) together with the impact of loneliness. The potential associations between these factors have not previously been investigated. We expected that ACEs would be negatively associated with WTL and positively related to SA and loneliness. Secondly, we predicted a mediating effect via all three of these factors on the association between ACEs and depressive symptoms.

Methods: Participants (N = 322; mean age 65.90, SD = 5.65) completed an online survey comprising measures of depression, ACEs, subjective age, WTL and loneliness. Analysis comprised linear regression on depression and a mediation analysis using the PROCESS macro for SPSS to test the hypothesised model.

Results: As predicted, number of reported ACEs was associated with depression (r = .33), SA (r = .20), and loneliness (r = .23), and negatively with WTL (r = -.27; p < .001 in every case). Furthermore, an indirect effect of ACEs on depression via SA, WTL and loneliness was observed,  $\beta = .004$ , 95% CI [.001, .01].

Conclusions and implications: This study presents converging evidence for the longevity of the impact of ACEs into older age. Depression in this age group is not just due to declining health or bereavement, but may represent the legacy of childhood trauma, resulting in people feeling older than they are, and literally losing the WTL. The processes involved require clarification, but our results reinforce the need for a trauma informed approach to primary care for the elderly.

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## A Normalisation Process Theory evaluation of URAPP: A digital intervention to support adherence to bladder training in community paediatric continence clinics in England

<u>Dr Lucy Beasant</u><sup>1</sup>, Prof Jenny Ingram<sup>1</sup>, Davina Richardson<sup>2</sup>, Dr Joanna Clothier<sup>3</sup>, Prof Carol Joinson<sup>1</sup>
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Background: Daytime urinary incontinence (UI) is often assumed to resolve during childhood, but persistent, and new-onset, cases are common in adolescence and adversely impact quality of life. Bladder training, a behaviour modification intervention which aims to establish a regular schedule of drinking/toileting, is the first-line treatment for UI. URApp, (<a href="https://urapp.org.uk">https://urapp.org.uk</a>) a smartphone app we co-designed with young people and clinicians to aid adherence to bladder training, embeds techniques to improve adherence and is based on behaviour change theories. The aim of this study is to conduct a process evaluation to optimise the use of URApp in community paediatric continence clinics.

Methods: This evaluation was informed by Normalisation Process Theory (NPT) and used the Normalisation MeAsure Development questionnaire (NoMAD) to measure integration of URApp at baseline, 6,12 & 18 weeks. Focus groups or interviews with clinicians explored facilitators and barriers to embedding URApp in clinics. Qualitative data will be coded using NVivo, cross-referenced with NoMAD data and analysed thematically. Ethical approval was obtained from the University of Bristol and participating NHS Trusts (Ref:17560/IRAS:338625). Data collection and analyses will be complete by 31/12/2024.

Results: Nineteen participants at 5 sites completed NoMAD questionnaires, and 11 participants at 4 sites participated in focus groups/interviews. Preliminary NoMAD and qualitative data analyses indicate that clinicians need concise information and training explaining key features of URApp, to enable them to feel confident recommending it to patients. Clinicians reported that the secondary school environment presents barriers to regular drinking and toileting habits that are essential for bladder training to be effective.

Conclusions and implications: This mixed methods study highlighted important facilitators and barriers to embedding URApp in bladder training in paediatric continence clinics. A short animation explaining the key features of URApp that can be viewed by clinicians, teachers, parents, and young people is currently under development.

"Symptoms aren't severe enough to require intensive management, it's just going to be about coping strategies." Self-management for long COVID symptoms: A qualitative study embedded in the Avon Longitudinal Study of Parents and Children

<u>Dr Lucy Beasant</u><sup>1</sup>, Prof Carol Joinson<sup>1</sup>, Emeritus Prof Jean Golding<sup>1</sup> <sup>1</sup>University of Bristol, Bristol, UK

Background: Post COVID-19 syndrome, also known as 'long COVID' is a multisystemic condition, characterised by symptoms that are not explained by an alternative diagnosis, which can follow COVID-19 infections of any severity, including asymptomatic infection. The Avon Longitudinal Study of Parents and Children, (ALSPAC) http://www.bristol.ac.uk/alspac/ has contributed extensively to COVID-19 related research, e.g., OSF | ALSPAC COVID-19 Data collections and Convalescence. The Coping Strategies Study explored ALSPAC participants' lived experience of long COVID symptoms, specifically in relation to the role of different beliefs and behaviours: https://ahrp.blogs.bristol.ac.uk/.

Methods: Eligibility criteria: 1.ALSPAC participant (parent generation or study child born 1991-92). 2.The persistence of SARS-CoV-2 symptoms for ≥12weeks (determined via questionnaire completion: February

2020-July 2021). 3. Consent to further contact from a researcher. Data collection: Participants took part in an hour long semi-structured interview to discuss coping with ongoing COVID-19 symptoms (August 2022-April 2023). Data analysis: Anonymised data from interview transcripts were organised using NVivo software and analysed using thematic analysis techniques.

Results: Thirty-one participants took part in semi-structured interviews, and 3 key themes were identified:

- 1. "I didn't recognise myself" Vulnerability and health uncertainty
- 2. "Finding what works for you personally" Self-management of long COVID symptoms
- 3. "You can only talk about one thing, nothing's ever linked to anything else"

Future recommendations: Holistic rehabilitation and supported self-management

Few participants were given a formal Post COVID-19 syndrome diagnosis by their GP. Most experienced multiple symptoms which resulted in numerous GP contacts, medical tests and prolonged health uncertainty. A lack of holistic support led to mental and physical ill-health, difficulties maintaining a work-life balance, and the realisation that self-management would be necessary to deal with ongoing symptoms.

Conclusions and Implications: Those living with long COVID reported a need for access to holistic rehabilitation and supported self-management from a multidisciplinary team to reduce ongoing health inequalities.

## Exploring the Perceptions of Smokers Living in Social Housing in Somerset on the Barriers and Facilitators to Smoking Cessation

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Background: Smoking is the biggest driver of health inequalities in the UK, accounting for over half of the difference in life expectancy between the most and least deprived areas. Smoking cessation is occurring slower in more deprived groups, such as social housing residents, which indicates that there may be additional barriers to quitting. However, these barriers are poorly understood. Therefore, the project aimed to qualitatively explore the perspectives of smokers living in social housing in Somerset on the barriers and facilitators to smoking cessation.

Methods: Thirty-six adult smokers living in social housing in Somerset were recruited. Participant age ranged from 20 to 73 years, and 80% of participants identified as an ethnic minority. Six hour-long, semi-structured focus groups were conducted to explore thoughts and perspectives on smoking cessation.

Results: Inductive reflexive thematic analysis generated five themes, named (1) 'Smoking is Part of Me'; (2) 'Tobacco is There for Me When Nobody Else Is'; (3) 'I'm Motivated to Quit but it is Difficult for Me'; (4) 'I'm Impressed by the Smokefree Service but Never Knew It Existed' and (5) 'I Would Not Use a Vape to Help Me Quit Smoking.'

Conclusions: Findings indicate that motivation to quit smoking is high amongst social housing residents. However, cessation is difficult because smoking is deeply ingrained within social housing residents' lives, tobacco is used as a coping tool, Somerset's smokefree services are unknown, and there are misconceptions about the harms of vaping.

Implications: These results could influence local authority smoking cessation services and support. Barriers and facilitators experienced by social housing residents could be targeted to enable support to be more tailored for the population. This could ultimately reduce health inequalities caused by smoking.

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### Using complex systems mapping to co-produce a local action plan for improving diet and healthy weight in the early years

<u>Prof Nick Cavill</u><sup>1</sup>, Kimberley McLean-Guthrie, Christopher Topping, Dr Sandy Whitelaw <sup>1</sup>University Of Bath, Bath, UK

Background: NHS Dumfries and Galloway set out to develop and implement a systems-based approach to improving diet and healthy weight outcomes for children in their early years. They aimed to involve key local stakeholders leading key policy or operational actions in the development of a comprehensive system-wide diet and healthy weight action plan.

Methods: Three workshops were held which used complex systems mapping techniques to i) understand the key determinants of healthy weight in the early years ii) explore the connections between these issues and potential 'feedback loops' iii) gain consensus among stakeholders about potential system-wide interventions. The Intervention Level Framework was used to classify these interventions and stimulate further debate and refinement of the action plan. The process was evaluated independently through post-workshop questionnaires and focus groups.

Results: A complex system map was created by the stakeholders that described the system around healthy weight in the early years. This was used to draft a prioritised set of proposed system-wide actions that operated at different levels of the system. The process was found to be 'highly effective' in helping stakeholders explore a whole systems approach to diet and healthy weight by 67% of questionnaire responses (35/52) with the remaining 33% rating it as 'effective'. 59% of responses said they would be 'highly likely to use something they learned today in their work'. Qualitative non-participant observation and interview data highlighted three broad insights: positive aspects, some variability in expectations of 'systems' and tangible suggestions for improvements. Two multiagency workshops have subsequently been held to prioritise the actions proposed in the systems mapping workshops and embed them in existing strategic contexts

Conclusions and implications: Systems mapping can be a valuable tool to help in the co-production of action plans on complex public health issues, helping to engage stakeholders and plan system-wide actions.

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# Patient and Public Involvement and Engagement in an assets-based peer support intervention (ABA-feed) for increasing breastfeeding initiation and continuation

**Dr Joanne Clarke**<sup>1</sup>, Ngawai Moss<sup>2</sup>, Dr Nicola Crossland<sup>3</sup>, Dr Nicola Savory<sup>4</sup>, Jennifer McKell<sup>5</sup>, Prof Gill Thomson<sup>3</sup>, Prof Jenny Ingram<sup>6</sup>, Dr Beck Taylor<sup>7</sup>, Prof Christine MacArthur<sup>1</sup>, Prof Kate Jolly<sup>1</sup>

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Background: The ABA-feed trial is testing a proactive peer support intervention to increase rates of breastfeeding, starting antenatally to first-time mothers, regardless of feeding intention.

The aim of Patient and Public Involvement and Engagement (PPIE) within the trial is to gain insight from pregnant women/new parents on experiences of infant feeding, and to explore whether the intervention, methods of communication, data collection and dissemination are appropriate given their experiences and competing priorities.

Methods: Throughout the trial and the preceding feasibility study, pregnant women/new parents have been involved in several ways, including activities at Children's Centres, baby groups and research engagement sessions; PPIE representatives at Trial Steering and Co-investigator meetings and regular meetings with an established PPIE group. To date, the PPIE group have provided input on intervention design, participant-facing materials, recruitment methods and communication methods and have been involved in qualitative data interpretation.

Results: The PPIE group provided suggestions on online recruitment methods and how to make the website and recruitment processes simpler and easier to navigate. There was clear guidance from the PPIE group that online questionnaires should be the default option, and they were instrumental in improving rates of birth notification by suggesting more frequent communication with women before birth, involving partners in the notification, and a study luggage tag for hospital bags.

Involving the PPIE group in qualitative interview data analysis provided insight into their interpretation of quotes based on participant characteristics. Their interest in cultural differences has been influential in broadening our analysis to include open-text survey data from a diverse range of women.

Conclusions/Implications: Public involvement has provided a vital user-perspective throughout all stages of the ABA-feed trial, from intervention development to dissemination. Support and input from the group has ensured that the trial remains focused on the needs of participants and our target population.

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### How is dietary intake of adolescents associated with their cognition, mental health and wellbeing? A systematic review

<u>Joseph Coombes</u><sup>1,4</sup>, Dr Marie Murphy<sup>1,4</sup>, Dr Abigail Russell<sup>2,4</sup>, Amy Turner<sup>3,4</sup>, Ellie Ansell<sup>1</sup>, Eman Algaai<sup>1</sup>, Becs Rodohan<sup>2</sup>, Prof Miranda Pallan<sup>1,4</sup>

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Background: A healthy diet is a crucial component for adolescents' health and wellbeing as having a balanced nutritional intake during adolescence provides the foundation for a healthy lifestyle, and a healthy diet is fundamental to growth and cognitive development. Current literature surrounding dietary intake and its association with cognition, mental health and wellbeing has mainly focused on younger children. Previous reviews have synthesised evidence on food consumption, dietary behaviour and nutritional interventions, and their relationship to cognition and mental health outcomes. However, there has not been a review conducted that examines these associations focusing solely on the adolescent population.

The aim of this study is to review and synthesise studies that explore the relationship between dietary intake and cognition, mental health and wellbeing in the adolescent population.

Methods: Electronic searches were conducted in CENTRAL, MEDLINE/PubMed, CINAHL via EBSCOHOST, ERIC, British Education Index, Child and Adolescent Studies, Education research complete, Psychology and Behavioral Sciences Collection, Social Policy and Practice Embase, and APAPsychINFO via OvidSP. This systematic review will be conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Title and abstracts are being screened by two independent reviewers, then full

texts will also be assessed by two reviewers. A narrative summary will be used to report and synopsise the extracted data.

Results: 6715 records have been identified from the database searches, with 1790 duplicate records removed. 4925 records are currently being screened for relevance. Data extraction and synthesis is due to be completed in January 2025 and full results will be presented at the conference.

#### Conclusions and implications:

The findings of this review will be a valuable reference to inform intervention and policy aimed at improving nutritional intake and mental wellbeing in adolescents, as well as identifying gaps in the current literature.

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#### Interventions Targetting Occupational Stress, Resilience and Burnout: An Umbrella Review

<u>Joao Craveiro</u><sup>1</sup>, Oliver Allchin<sup>1</sup>, Prof Ian Kellar<sup>1</sup> <sup>1</sup>University Of Sheffield, Sheffield, UK

Background: With workplace conditions increasingly recognised as a major source of stress and burnout, the need to improve workforce mental health - for individual well-being and economic sustainability - has become pressing. This Umbrella Review evaluates the effectiveness and methodological quality of current workplace intervention strategies by analysing secondary research. It also provides a summary of key outcome definitions, intervention theoretical foundations, and research recommendations.

Methods: Systematic Reviews and Meta-Analyses examining workplace interventions for stress, burnout, and resilience in adult, non-emergency, and non-clinically ill employees were identified from 2019 to June 2024 across five databases. Review quality appraisal and data extraction were conducted using extended versions of the Joanna Briggs Institute (JBI) tools for Umbrella Reviews.

Results: Ninety reviews were included: sixty-four on burnout, fifty-nine on stress, and nineteen on resilience. Reviews demonstrated high quality in the JBI Critical Appraisal Instrument for Systematic Reviews and Research Syntheses. Sixty-seven reviews reported a significant positive effect on at least one outcome, with only eight noting a significant negative effect. Mindfulness and Cognitive Training interventions appeared in sixty-eight reviews, and six methodological clusters were identified. Research recommendations primarily called for longer follow-up, larger samples, more Randomised Controlled Trials, and greater diversity in participant samples.

Conclusions and Implications: Mindfulness-based and Cognitive Training interventions are widespread and generally effective in reducing negative outcomes while enhancing positive ones. However, methodological quality in individual studies remains moderate to low, primarily due to selection and attrition biases, underreporting, and lack of preregistration. Future studies should focus on co-designing interventions to enhance participant engagement and reduce attrition, pre-registering protocols, better reporting for greater transparency, and using random allocation to intervention arms to minimise selection bias. Finally, consensus on measurement standards, theoretical clarity and development of Core Outcome Sets is essential, as heterogeneity continues to limit comparability across reviews.

#### A RE-AIM Evaluation of the Medway Public Health Intervention 'Medway Can'

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Objectives: To evaluate the public health social marketing campaign 'Medway Can' part of Medway's whole system approach to address increased obesity Medway's prevalence. Public health physical activity initiatives encouraged residents to make feasible lifestyle changes of regular activity and adopting healthier food choices within the Medway community.

Design: Applying the RE-AIM evaluation framework captured data across 5 domains; reach, effectiveness, adoption, implementation, maintenance.

Methods: a mixed methods evaluation was implemented. Cross-sectional survey distributed across Medway residents to assess awareness of campaign, impact on motivation and behaviour, use of resources. Semi-structured interviews with representatives- Medway residents, community organisations, local schools and businesses.

Results: Data collection was ongoing until May 2023. Analysis of Phase 1 quantitative and demographic data (n = 110) illustrates campaign reach and effectiveness. Interviews (n = 12) conducted to-date highlight barriers and facilitators to implementation.

Conclusions: Findings will be used by Medway Council to inform a healthy weight strategy and determine what elements of the campaign will be continued. Also, how to adapt to successfully reach targeted populations. Findings were mixed, there were limitations on the campaigns' reach and awareness across Medway's population that reduced its impact. Furthermore, the functionality of the website. Strengths highlighted by those aware of Medway Can and regularly engaged in it have helped prompt behaviour change at work and home. Moreover, funding has enabled community targeted activities and has positively impacted those engaged within communities, especially for community initiative targeting harder to reach populations.

How to develop a psychological intervention to be delivered for patients with alcohol dependence seen in an acute hospital setting? – A logic model

**Georgia Foote**<sup>1</sup>, Prof Julia Sinclair<sup>1</sup>, Dr Ben Ainsworth<sup>1</sup>, Dr Rebecca Band<sup>2</sup> <sup>1</sup>University Of Southampton, <sup>2</sup>Swansea University

Background/aims: Evidence for the specialist treatment of alcohol dependence show that multiple psychological therapies are effective. However, research has not yet examined the variety of psychological interventions that currently exist within acute hospitals for the management of alcohol dependence. This has resulted in the inconsistent application of psychological interventions within hospital settings. A logic model has been developed to propose the potential mechanisms through which psychological interventions may work.

Methods/results: Evidence based psychological interventions for the treatment of alcohol dependence include Motivational Interviewing (MI), Cognitive Behavioural Therapy (CBT), Identification and Brief Advice (IBA), Social Behaviour and Network Therapy (SBNT), and Behavioural Couples Therapy (BCT). However, some interventions (SBNT and BCT) are neither feasible nor possible in the short time available in the acute hospital setting.

For the development of this logic model, we have considered the aggregated Behaviour Change Techniques and universal principles that constitute these interventions and may be feasible in the hospital setting. This resulted in the micro level outputs that are a result of the techniques used within psychological interventions, and the short and long-term outcomes that these outputs may cause.

The developed draft logic model will be presented to an audience of expert stakeholders to receive questions and comments with the aim of further refining the model.

Conclusions: Following expert stakeholder input, the logic model will be refined and will underpin PhD research to develop a targeted psychological intervention for patients with alcohol dependence presenting in the acute hospital setting

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#### Investigating whether religious attendance moderates associations between hearing and mental health

**Dr Neil Goulding**<sup>1</sup>, Dr Amanda Hall<sup>1,2</sup>, Mrs Yasmin Iles-Caven<sup>1</sup>, Prof Jean Golding<sup>1</sup>

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Background: We investigate whether self-reported hearing difficulties are associated with poorer mental health subsequently, and whether any association is moderated by religious attendance.

Methods: We used questionnaire data from the Avon Longitudinal Study of Parents and Children (ALSPAC), based in southwest England. We will discuss associations between any hearing loss (AHL) in mothers and partners (during pregnancy) and the Edinburgh Postnatal Depression Scale (EPDS), measured when the child was age 8 months, 21 months and 30 years (post-Covid). We performed multivariable logistic regression, adjusting for potential confounders age, sex, ethnicity, chronic health problems, education and socioeconomic variables. We then stratified analyses by religious attendance (at least once a month (regular) versus at least once a year/never).

Results: Preliminary results suggest associations between AHL and depression at each timepoint, with odds ratio (OR) = 1.44 (95% CI 1.24-1.67, N=13517, p-value<0.001) at 8 months, OR=1.57 (95% CI 1.36-1.83, N=12284, p-value<0.001) at 21 months and OR=1.31 (95% CI 1.10-1.58, N=5107, p-value=0.003) at 30 years.

When stratifying by religious attendance, there was no evidence at P<0.05 of an association between AHL and EPDS at 8 months and 30 years for those with regular attendance (OR=1.15 (95% CI 0.75-1.76, N=1810, p-value=0.52) and 1.36 (95% CI 0.87-2.14, N=934, p-value=0.18), respectively), whereas the association was still evident for those with rare/never religious attendance (OR=1.47 (95% CI 1.24-1.73, N=11245, p-value<0.001) and 1.31 (95% CI 1.07-1.61, N=4031, p-value=0.009), respectively).

Conclusions and implications: Our results suggest that religious attendance may reduce associations between hearing loss and depression.

## Menopause in a US Workplace: a window into midlife women's experiences of the menopausal transition at work – results of a company-wide workplace survey

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Background: Despite the important social and economic role of midlife women in the workplace, the impact of menopause symptoms on the workplace experience is under-researched. This study aimed to better understand prevalence and impact of menopausal symptoms for midlife women in a US workplace, with the ambition of enhancing workplace education.

Methods: An online survey was disseminated to all US-based employees of pharmaceutical company Pfizer Inc. Eligible respondents were aged 40-65 years and self-identified as having personal experience of the menopause transition. The survey covered participant demographics, stage of menopause, experiences and impact of menopause symptoms on daily life and at work, and perceptions and experiences of support. The survey was approved by company stakeholders to ensure ethically appropriate and aligned with privacy and data protection standards. Data presented here form part of a mixed-methods study.

Results: Respondents (n=1,642) self-reported their menopause transition stage, with the majority (70%) currently experiencing menopause symptoms. Those which most commonly impacted workplace performance included changes to sleep patterns (28%), changes to memory (20%), hot flashes (14%), and anxiety (10%). Symptomatic women reported being less able to concentrate (39%), more stressed (34%), less confident (22%) and less patient (20%). Although 50% of women disclosed that they felt, or would feel, extremely/ somewhat comfortable discussing menopause with colleagues, 92% reported feeling a lack of support at work. The survey also revealed a need for menopause education.

Conclusions and implications: In this survey of midlife women in a US workplace, changes in sleep and memory were the most common symptoms of menopause which impacted women's perceptions of their own performance at work. A substantial gap in knowledge exists, highlighting the need for further education and support in the workplace. In response, Pfizer created a dedicated menopause website with practical resources for colleagues.

An evidence map of active travel and inequalities: Interventions to increase active travel and improve health outcomes in disadvantaged population groups and their potential to reduce health inequalities

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Background. Interventions to increase levels of active travel have the potential to benefit population and planetary health. Although overall effects have been widely evaluated, differential impacts of these interventions by population subgroups subject to disadvantage and inequity have been under-studied. We produced an evidence map as the first component of a multi-stage evidence synthesis to support decision-makers in implementing active travel interventions that are both effective and equitable.

Methods. Systematic evidence map, resulting from searches of 30 electronic databases across a wide disciplinary range. Eligible studies evaluated interventions with a purpose of increasing active travel, and included a quantitative measure of active travel behaviour and/or a health outcome reported for population

subgroup(s) defined by sex/gender, race/ethnicity, age, socioeconomic status, disability, or sexuality. We extracted data on study characteristics including intervention types, populations and outcomes.

Results. From screening 7620 abstracts and 583 full-texts, we identified 155 eligible reports. 27 of these were systematic reviews (23 of which concerned active school travel (AST)), and 128 described primary research (89 of which concerned AST). Of the 39 primary research reports that did not concern AST, there are substantive clusters of evidence examining impacts by sex/gender, race/ethnicity, age, and socioeconomic status, but minimal evidence relating to disability and sexuality. Infrastructural interventions and walking outcomes were most common. Most interventions were evaluated using non-randomised designs. Further characteristics of the included evidence will be presented.

Conclusions and Implications. We confirmed that active travel interventions for schoolchildren have been extensively researched and reviewed, and also identified a substantial body of evidence concerning differential impacts of interventions for other population subgroups. A subsequent in-depth systematic review aims to determine how effective active travel interventions are for these other disadvantaged population subgroups, as well as whether they are more or less effective than they are for less disadvantaged groups.

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Fear of cancer recurrence and fear of cancer progression, digital resource engagement, and health literacy: a scoping review

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Background: Cancer care is evolving rapidly. Earlier detection and improved treatments have resulted in increased survivorship and a greater requirement for long-term health management. To cope with increased healthcare demands patient self-management is essential. Digital resources provide a potential method to support patients in managing their long-term health. However, concerns, such as health literacy, and the emotional experience of cancer need to be considered in the uptake of digital resources. Fear of cancer recurrence (FCR) and fear of cancer progression (FOP) are particularly relevant in this context. This scoping review explored two main objectives, firstly, examining the link between FCR/FOP and engagement with digital resources, and, secondly, examining the link between FCR/FOP and health literacy.

Methods: A search of six databases search was conducted separately for each objective. Relevant papers were identified through title, abstract, and full-text screening, data was extracted, and a quality assessment conducted for each paper using relevant checklists from the Joanna Briggs Institute.

Results: To achieve Objective 1 we identified two relevant papers which suggested that higher levels of FCR/FOP were correlated with lower levels of engagement with digital resources. To achieve Objective 2 we identified eight relevant papers that indicated higher FCR/FOP is correlated with lower health literacy. However, one study with a greater sample size and more representative sample reported no significant relationship.

Conclusions and implications: There may be important relationships between the constructs of FCR/FOP, digital resource engagement, and health literacy. However, research is limited, and relationships may differ across cancer type and sex. Further research is needed to understand the significance and relevance of these relationships. This is crucial to develop, design and implement effective digital resources to support cancer patients in the future.

## The impact of energy (calorie) labelling on selection of alcohol products: An RCT in a simulated online supermarket

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Background: Alcohol calorie labelling is a potential public health intervention to reduce alcohol consumption, yet evidence for its effectiveness is inconclusive. This study examines the impact of alcohol calorie labels on selection and consumption in a simulated shopping environment.

Methods: A 4-arm RCT compared three different alcohol calorie label designs (black & white square; red & yellow square; red & yellow triangle) with a no-label control condition. Participants (n=2424) selected food and drinks for Friday night to Sunday on a simulated supermarket website. In the experimental conditions, alcohol products had calorie labels superimposed on the product images. Linear regression compared total energy (kcal) selected between groups. A zero-inflated negative binomial model compared total units of alcohol selected between groups.

Results: Compared to control, alcohol calorie labels did not significantly affect total energy selected (black & white square: -0.0308, 95% CI [-0.1073, 0.0456]; red & yellow square: 0.0191, 95% CI [-0.0568, 0.0950]; red & yellow triangle: -0.0396, 95% CI [-0.1161, 0.0369]), nor total units selected (black & white square: 0.0112, 95% CI [-0.1123, 0.1347]; red & yellow square: 0.0319, 95% CI [-0.0887, 0.1525]; red & yellow triangle: -0.0385, 95% CI [-0.1619, 0.0848]). Results remained the same in sensitivity analyses (i) including only participants who selected alcohol and (ii) removing influential observations.

Conclusions and Implications: Alcohol calorie labelling did not significantly affect energy or units of alcohol selected in this simulated shopping environment. This suggests implementing alcohol calorie labels may have limited impact on consumer behaviour in this context.

# Stakeholder perceptions of a behavioural intervention to introduce FeNO-guided asthma management into routine primary care reviews

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Background: Asthma affects over four million people in the UK and patient outcomes remain sub-optimal. An objective measure of airway inflammation may provide opportunities for better patient care. A behavioural intervention to introduce a non-invasive breath test to measure airway inflammation (fractional exhaled nitric oxide/FeNO) and optimise management in primary care asthma reviews, was developed using the Person-Based Approach. The intervention includes a web-based FeNO-guided algorithm, which generates management recommendations for clinicians. We aimed to explore barriers and facilitators to implementation, perceived by key stakeholders.

Methods: Charity representatives, policymakers, clinicians, patients, commissioners and others with a stake in how asthma reviews are run were invited for in-depth interviews. Initial purposive, then snowball sampling were employed. Data were analysed inductively following thematic analysis.

Results: 19 individuals participated in interviews, including five patient representatives, and 14 clinicians: 10 currently use FeNO. All clinicians held additional roles, for example, in commissioning or policymaking.

Participants felt the FeNO-based recommendations, and associated advice for patients, would be helpful in addressing uncertainty about stepping-down treatment, when relevant. They stressed sufficient time must be allocated in consultations to include FeNO and clinicians would wish to maintain autonomy in decision-making.

Practices without access to FeNO need integrated care board (ICB) support for staff time and training and sustained funding for the equipment. Regional practice champions were perceived as helpful in influencing ICB decision-makers and clinicians to adopt FeNO. However, participants identified significant variation in motivation from clinicians to adopt new innovations. Motivation could be improved by providing hands-on training to allow clinicians to see intervention benefits first-hand, or by peers sharing examples of good practice.

Conclusions and implications: ICBs will need to be persuaded of cost-benefits for implementation of FeNO to progress. Stakeholders felt champions sharing positive experiences would influence clinicians towards implementing the FeNO-guided intervention.

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#### DISTINCT: exploring public views on collecting data to monitor inclusivity in research

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Background: Diversity in clinical research populations enables equitable access to new interventions and generalisability of results. Limited demographic data collection in UK studies makes evaluating and addressing disparities in access and uptake of trials challenging. There are currently no national guidelines for collecting demographic data to understand inclusivity. Therefore, we conducted a public consultation exercise with people from diverse backgrounds to explore views on potential questions and data collection approaches.

Methods: Our project team, including two public contributors, selected questions covering protected characteristics and certain groups under-served in research. Questions from national surveys were used where available, to allow comparison with national-level data. We planned four discussion groups on different sets of questions (Health, disability and unpaid care; education and employment; sexual orientation and gender identity; ethnicity, language and religion). Public contributors were invited through public involvement networks and local community groups to register their topic of interest. The topic guide explored views on proposed questions, text explaining the data collection purpose, data storage (i.e. pseudonymised or anonymous), the length and missing topics.

Results: The project team initially selected 18 questions from national surveys. We held four online discussion groups and two one-to-one interviews with 29 public contributors from diverse backgrounds (June 2024-July 2024). After public feedback, three questions were removed (occupation, marital status, parental leave) and ten questions were modified, resulting in a 15-item question set covering age, sex, gender, trans status, sexual orientation, ethnicity, religion, language, education, employment status, disability, long-term conditions and their impact, childcare and other caring responsibilities.

Conclusions and implications: This demographic question set can now be used in UK-wide research. This will improve data collection standardisation across studies to increase comparability and evaluation of inclusivity. We are now piloting the question set to evaluate and improve its utility and performance.

#### A literature review to explore tools used in the assessment of hospital-acquired deconditioning

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Background: 'Hospital-acquired deconditioning' (HAD) describes the phenomenon of acute functional decline during a hospital stay, secondary to the condition being treated. The prevalence of HAD among older adults is estimated between 30-65%. Risk of HAD is influenced by pre-illness functional reserves, hospital treatment, environment and behavioural factors including physical activity and nutritional intake.

This project aimed to explore tools used in the assessment of HAD. This is part of a programme of work with NHS Wales Executive to support multidisciplinary teams in identifying, monitoring, and preventing HAD through targeted interventions focusing on both patient and staff behaviours.

Methods: A search strategy was designed and run in Ovid Medline. Registries were searched for ongoing clinical trials. Studies were included that used validated tools to assess HAD, a change in functional status, or changes in prespecified domains of HAD (i.e., mobility, cognition, and continence) in generalisable adult, inpatient populations. Records were selected systematically by two reviewers.

Results: From 467 records, 116 full-text articles were reviewed, and 24 studies deemed eligible; 23 observational studies and one systematic review. Sample sizes ranged from 44 to 33,111 patients, populations were predominantly aged  $\geq$  65.

A total of 24 tools were identified. The Barthel Index and Katz Activities of Daily Living tools were used most frequently to assess HAD. Other tools assessed cognition, delirium, social engagement, nutrition, mental wellbeing, communication, and fatigue, with no tool assessing all elements comprehensively.

Conclusions: Hospital-acquired deconditioning is most frequently assessed by an individual's ability to conduct activities of daily living. However, this does not sufficiently account for potential earlier signs of deconditioning including impacts on cognition, nutrition or fatigue. This highlights the need for a suitable tool to effectively identify and monitor hospital-acquired deconditioning, ultimately guiding the development and evaluation of targeted, multifaceted interventions to reduce the prevalence of deconditioning.

Emotion constructs and outcome measures following false positive breast screening test results: A systematic review of reporting clarity and selection rationale

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Background: This systematic review aimed to (i) identify constructs and outcome measures used to assess the emotional and mood impact of false positive breast screening test results; (ii) appraise the reporting clarity and rationale for selecting constructs and outcome measures.

Methods: MEDLINE, CINAHL, PsycINFO databases were systematically searched from 1970 to November 2022. Studies using standardised and non-standardised outcome measures to assess the emotion or mood impact of false positive breast screening test results were included. Sample sociodemographic details related

to disadvantage were extracted across PROGRESS+ factors. A 15-item coding scheme was devised to appraise articles on clarity and rationale for selected constructs and measures.

Results: Forty-seven articles were included. All articles reported sample details on gender/sex, age, and location, with limited reporting on other PROGRESS+ characteristics: education (66%), occupation (36%), race and ethnicity (36%), and socioeconomic status (13%). The most common constructs were general anxiety and depression, and disease-specific anxiety and worry. Twenty-two standardised (validated) general outcome questionnaire measures and three standardised disease-specific outcome questionnaire measures were identified. While reporting of constructs and outcome measures was generally clear, rationales for their selection were lacking. Anxiety was typically justified, but justification for depression was almost always absent. Practical, theoretical, and psychometric justification for selecting outcome measures was lacking or absent.

Conclusions and implications: Heterogeneity in constructs and measures, coupled with unclear rationale for these, hinders a thorough understanding of why there are emotional effects of false positive screening test results. This may explain the repeated practice of investigating less relevant outcomes such as depression. Poor reporting of sociodemographic factors demonstrates that certain populations have been underserved in this field. A consensual conceptual model and standardised approach to measuring emotional impact of cancer screening test results is needed to address heterogeneity and other known issues of interpreting an inconsistent evidence base.

#### Research priorities in vulvodynia: A modified Delphi study

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Background: Vulvodynia is persistent and unexplained pain in and around the vulva, with unclear causes likely involving an interplay of a variety of biological and psychosocial factors. Women with vulvodynia often face delayed diagnoses, ineffective treatments, and significant impacts on their quality of life. Unique social pressures and negative experiences in seeking medical help further underscore the need for targeted research to address these challenges.

Methods: This study aimed to identify key research priorities for vulvodynia by engaging key stakeholders, including patients, clinicians, and researchers with expertise in vulvodynia, to guide future research efforts. A mixed-methods participatory approach was used, combining a three-phase modified e-Delphi methodology with focus groups. In Phase 1, participants generated research questions and topics through surveys and focus group discussions. In Phases 2 and 3, participants engaged in successive rounds of surveys to reach consensus. During Phase 2, participants rated and ranked the topics identified in Phase 1 to develop a preliminary "top 10" list of priorities. In Phase 3, participants re-rated and re-ranked these "top 10" topics to finalise a consensus on the key research priorities for vulvodynia.

Results: The top three priorities identified were: (1) Creating a person-centred care pathway and increasing awareness, education, and training of clinicians on vulvodynia, (2) Developing of a multidisciplinary pain team, and (3) Creating of accessible information for patients on treatment options and self-care advice.

Conclusions and Implications: This study highlights the importance of integrating the perspectives of those with lived experience, healthcare professionals, and researchers to identify research priorities with the greatest potential for impact. By achieving consensus on these priorities, the findings will shape future vulvodynia research, support efficient resource allocation, and inform policy development. Furthermore, these

results provide a foundation for grassroots initiatives to improve awareness, education, and care pathways for individuals affected by vulvodynia.

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### Exercise professionals in extended scope of practice roles: A qualitative exploration of a new model of rehabilitation

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Background: There is a need to provide greater patient choice through accessible and sustainable rehabilitation for people with long-term conditions. New models of rehabilitation employing non-clinical healthcare workers in extended service practice roles are developing. Little research has investigated the experiences of non-clinical health workers, such as exercise professionals, in extended scope of practice roles. This research explored the experiences of stakeholders and beneficiaries (exercise professionals in extended scope of practice roles, allied health professionals and people with Long COVID) participating in a new model of rehabilitation delivered online from selected Fitness and Wellbeing Centres of a UK charity.

Methods: A qualitative design using in-depth semi-structured interviews was undertaken to explore the experiences of triage physiotherapists, specialist trained exercise professionals, referred to as exercise specialists, and people with Long COVID participating in the new model of rehabilitation involving exercise, education and wellbeing support.

Results: Five triage physiotherapists, two exercise specialists and three people with Long COVID were recruited. Facilitators, barriers and opportunities were identified as key themes. Facilitators related to 'it isn't just exercise', 'condition specific needs are met' and 'dedicated team who make a difference'. Barriers related to 'unmet staff needs' and the 'optimising resources'. Opportunities related to 'the provision of a stepped-down approach at programme end' and 'evaluating emerging trends'.

Conclusion: This novel model of rehabilitation provided positive experiences for people living with Long COVID. Some aspects of the role provided job satisfaction for the delivery team but mentorship, support, and additional training in psychological skills and mental health are important when considering sustainability and expansion of the programme. Scaling out to other clinical populations and areas where access to conventional services are sparse could provide a viable public health strategy to improve access to services thereby reducing mainstream healthcare costs.

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How is goal setting used in interventions for chronic disease prevention and management in Sub-Saharan Africa? A systematic review and narrative synthesis

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Background: Non-communicable diseases are increasingly prevalent in sub-Saharan Africa and goal setting is often used to promote healthy self-management behaviours. Our aim was to synthesize literature around how goal setting is used and identify ways to better use this behaviour change strategy for regional interventions.

Methods: A systematic search was conducted in six databases and results independently screened for eligibility. Study characteristics, intervention details, goal setting components, and feedback from participants and facilitators were extracted. Data were analysed using narrative synthesis and thematic analysis for qualitative data. The Mixed Methods Appraisal Tool was used to assess study quality.

Results: 24 publications were included describing 18 unique interventions. Goal setting intervention components included a variety of frameworks and tasks. Interventions were often facilitator-led and many were conducted in group settings. Participants reported goal setting as useful for putting self-management into practice but encountered challenges related to language and literacy levels. Included studies were of high to moderate methodological quality. Adequate detail on goal setting intervention components was not always present.

Conclusions and Implications: Our review provides a comprehensive picture of goal setting in chronic disease prevention and management in sub-Saharan Africa. Recommendations for the use and reporting of goal setting intervention components are made.

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Using the Person-Based Approach to develop a web-based intervention to support the early introduction of food allergens to prevent food allergies in infants

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Background: About 5% of UK preschool children have food allergies. These may be lifelong and, in some cases, life-threatening. Forty years ago, babies were introduced to solid foods at around 3-4 months of age. Healthcare professionals (HCP) then began recommending that solids be delayed until six months to promote exclusive breastfeeding. Recent research shows that food allergies may be prevented by introducing food allergens from four months, when an infant is developmentally ready. In these studies breastfeeding was not interrupted, where this was recorded, and nutritional and growth outcomes were not adversely affected. This project is developing a digital behaviour change intervention to support parents/carers/HCPs with the early introduction of food allergens at 17 weeks when an infant shows development readiness.

Methods: A Person-Based Approach is being used, alongside theoretical and evidenced understandings of relevant target user behaviours, to develop content suited to them. This involves developing 'guiding principles' and conducting interviews with parents/carers and HCPs. Views and experiences are systematically coded and analysed to identify recurrent themes. Interviews are ongoing and will conclude in February 2025.

Results: Insights from interviews are being acquired regarding barriers and facilitators to implementing the early introduction of food allergens. Completed interviews with parents/carers show that barriers revolve around anxiety, practical concerns, and current advice from HCPs. HCPs report not being familiar with recent evidence, discomfort with providing advice that conflicts with national guidelines, and not feeling sufficiently trained to confidently advise on early introduction of food allergens.

Conclusions and implications: These findings, along with existing theory and evidence about user context and experience, are closely guiding intervention development. We also reflect on the benefits and challenges of the approach and outline the next steps for the project. This includes a cluster parallel group feasibility trial and a large multi-centre trial across the UK.

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### School-based indicated prevention interventions targeting adolescent anxiety and depression: Results from a scoping review

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Background: The project aims to synthesise the programme theory, contextual and implementation data underpinning effective school-based indicated interventions. Indicated interventions attempt to prevent the first onset of anxiety and depression in children and adolescents with subclinical symptoms. A few effectiveness reviews have shown that indicated interventions can decrease school students' anxiety and depression symptoms, and, for depression, that targeted interventions are more effective than universal approaches.

Method: A scoping review has synthesised the global evidence on effective indicated interventions for adolescent mental health. Seven electronic bibliographic databases, cross referencing with relevant systematic reviews and consultation with a panel of experts returned 15,010 unique papers. Two reviewers screened titles, abstracts and then full papers resulting in 39 included studies that have been charted and visually mapped inline with scoping review methodology. A thematic sysnthesis of programme theory, contextual and implementation data was conducted.

Results: The results for this project will be available from January 2025. The presentation will elaborate on three areas in these results. First, the screening methods, tools and cut-offs utilised in indicated prevention programmes attempting to find adolescents with subsyndromal anxiety and depression will be discussed. Secondly, inhibitors and enablers to delivering these programmes will be explored. Lastly, the underpinning theories, including the intervention components, mechanisms of change and mediators will be elaborated to show how these programmes proffer to change adolescent symptoms and, potentially their mental health trajectories.

Implications: Effectiveness trials can demonstrate whether an indicated intervention leads to changes in adolescent mental health outcomes. However, the main implication of this project is to elaborate on how interventions change adolescents' mental health for those who have not reached a clinical need yet. This is an important progression in the prevention of adolescent anxiety and depression.

### Culturally tailored campaign to increase cancer screening uptake in 'White Other' communities in North East London

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Background: Claremont worked in partnership with the North East London Cancer Alliance to explore barriers and create a behaviour change intervention to drive uptake in cancer screening among sub-sections of the 'White Other' population within North East London.

Methods: We conducted a literature review followed by qualitative research with people from these communities using a mix of individual interviews and focus groups (total of 69 individuals from Lithuanian, Turkish, and Polish backgrounds). Data were thematically analysed. Learnings from initial stages of the analysis were used to produce mock-ups and statement prompts for co-production sessions. We hosted co-

production sessions in community centres with the people from these communities to co-design behaviour change interventions to drive uptake of cancer screening.

Results: Language specific resources were co-produced (in the form of videos, and shareable digital resources), targeting specific barriers with reliable and culturally relevant information. These were disseminated through community organisations. Elements such as relatedness and a focus on less-fatalistic conversations starters around cancer were perceived as key concepts to raise awareness and promote screening behaviour. Hosting sessions in community settings, in their own language, facilitated the research activities and enabled people to feel more at ease. By providing a detailed overview of the aims and objectives of the research to interpreters, allowed them to accurately interpret and translate questions and answers.

Conclusions: Establishing a relationship of trust with local organisations is crucial to facilitate research activities with under-served groups, and promote behaviour change. Co-designing an intervention directly with the target audience groups gave us the opportunity to create culturally tailored resources that were relevant and meaningful to the community to address unique barriers effectively. Producing familiar and relatable content helped promote interest and drive behaviour, reduced fears and stigma around cancer screenings and built trust by featuring community members

Understanding suicide risk in Premenstrual Dysphoric Disorder (PMDD); expanding the Integrated Motivational-Volitional (IMV) model of Suicidal behaviour

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Background: Premenstrual Dysphoric Disorder (PMDD) is a severe hormone-based mood disorder that impacts 1 in 20 menstruators. In the UK alone, over 824,000 menstruators have PMDD of which, 593,600 will experience suicidal thoughts, 412,000 will engage in non-suicidal self-injury (NSSI) and 275,000 will attempt suicide. At UKSBM 2024, our previous abstract presented suicide and self-harm prevention as a research priority for PMDD. We identified the IMV model of suicidal behaviour as a tool to understand and ultimately prevent suicide in people with PMDD. The aim of this study was to inform the adaptation of the IMV model for PMDD via a review of the evidence base.

Methods: Informed by findings from our 2023 UK stakeholder consultation and evidence from systematic review of existing literature on PMDD and suicidal behaviour, we mapped findings onto the IMV model to; a) understand how existing factors are experienced by those living with PMDD, and b) to identify new specific factors that may help health professionals understand suicide prevention within the PMDD population.

Results: We identified important additions to the IMV model for it to address the unique risk factors associated with PMDD. Among these are factors linked to: neurodiversity; menstrual stigma; hormonal trigger events; core mood symptoms; cumulative cyclical exhaustion; and rejection sensitivity. We will present the final adapted model, and discuss its utility in clinical practice.

Conclusions and implications: The adapted model will improve screening, identification and management of PMDD patients requiring suicide and NSSI related support. This aligns with current policy on improving women's health. Our methodology also demonstrates how the IMV model can be adapted for use within specific populations, in particular those with fluctuating mental health conditions, (in a novel way that provides a framework for working with each population).

### Time to Talk Public Health – a nationally representative public engagement panel to inform policy and practice development in Wales

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Public bodies in Wales are required to think about the long-term impact of their decisions and to work better communities to improve population health. Throughout the coronavirus pandemic, Public Health Wales (PHW) implemented a national public engagement telephone survey to monitor health and well-being and understand public views on coronavirus policy. Around 28,000 people took part with survey reports published swiftly to enable findings to inform the Welsh national response. The benefits of having a rapid mechanism to incorporate the voice of the public in policy and practice development was realised and consequently postpandemic, a broader public engagement model was designed to inform public health practice and policy. In 2022, an on-going nationally representative panel 'Time to Talk Public Health' was established, with around 2,500 Welsh residents (aged 16+ years) recruited and invited to complete surveys covering the breadth of public health topics. Online, telephone and face-to-face recruitment methods are used, with regular surveys completed either online or by telephone. To-date, each survey has achieved a sample of around 1,000 people. Survey questions are informed by the insight needs of PHW and partners with findings used to inform work programmes, policy, and evidence-based messaging. Key findings included 37% of people reporting having witnessed violence in the previous year (June 2023 survey); 29% strongly agreeing they are able to find time to do the things that matter for their mental wellbeing (Feb 2024 survey); and 41% saying their partner's technology use had a negative impact on their relationship with them at least some of the time (Feb 2024 survey). The public engagement model drives value in drawing on and maximising knowledge and expertise across the public health family and supports connectivity in the translation of the insight to policy and practice.

Exploring the Experiences and Identifying the Barriers and Facilitators of Critical Care Staff Using the Team Immediate Meet (TIM) Tool for Debriefing

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Background: Critical care staff face high rates of burnout due to the demands and trauma inherent in their roles, negatively impacting both staff well-being and patient safety. Hot debriefing has shown promise in mitigating these effects, but its implementation remains inconsistent. The Team Immediate Meet (TIM) tool is a structured, two-minute hot debriefing aid designed to support ICU teams after critical incidents. This study explores the experiences of critical care staff using the TIM tool and identifies barriers and facilitators to its implementation.

Methods: A qualitative design using semi-structured interviews with ICU staff at two hospital sites was adopted. Participants were recruited through purposive and opportunity sampling to achieve a diverse representation of roles. Interviews were conducted in person or online, audio-recorded, transcribed, and analysed using the Framework Method. The Theoretical Domains Framework (TDF) and COM-B model were used to identify key determinants of behaviour and implementation factors.

Results: Preliminary findings suggest that the TIM tool enhances staff confidence to lead debriefs, promotes teamwork, and improves psychological well-being. Identified barriers include limited awareness, time constraints, and fear of judgment, while facilitators include clear guidance, perceived benefits, and managerial support. Insights across TDF domains, such as capability (knowledge, skills), opportunity (resources, environment), and motivation (attitudes, beliefs), highlight actionable targets for intervention.

Conclusion and Implications: The TIM tool is a simple, cost-effective intervention with potential to enhance ICU staff well-being and patient safety. Addressing identified barriers and leveraging facilitators could optimize its implementation and wider adoption. These findings offer critical insights for policy and practice to improve debriefing uptake in ICU settings.

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## Association of Multiple Pubertal Timing Indicators with Depressive Symptoms and Depression in Girls: A Longitudinal Study from Adolescence to Early Adulthood

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Background: Previous research investigating the association between pubertal timing and depression in girls has primarily relied on self-reported age at menarche (AAM). This study examines the association of a range of pubertal timing indicators, including both anthropometric and self-reported measures, with depressive symptoms and depression during adolescence to early adulthood.

Methods: Data from 4,607 girls were analysed, from a UK-based prospective cohort study, the Avon Longitudinal Study of Parents and Children (ALSPAC). Seven indicators of pubertal timing, assessed between ages 7 and 17, included age at: peak height velocity (aPHV), peak weight velocity, peak bone mineral content velocity, Tanner pubic hair and breast development stage 3, age at axillary hair, and menarche. Depressive symptoms were measured at ages 14, 17, 18, and 24 using the Short Mood and Feelings Questionnaire and depression was measured at ages 15, 18, and 24 using the Developmental and Wellbeing Assessment and the Clinical Interview Schedule-revised. Analyses used multivariable logistic regression adjusted for socioeconomic status and pre-pubertal BMI.

Results: Later pubertal timing was associated with lower odds of depressive symptoms at age 14 across six out of seven measures, including aPHV (AOR: 0.82; 95% CI: 0.72–0.95) and AAM (AOR: 0.84; 95% CI: 0.76–0.92). These associations attenuated by age 24.

Conclusions: Later pubertal timing, measured both objectively and through self-report, is associated with reduced odds of depressive symptoms during mid-adolescence, with associations attenuating by early adulthood. Some self-reported measures, such as age at axillary hair and Tanner pubic hair, showed inconsistent associations with depressive outcomes, suggesting a need for caution when using these indicators of pubertal timing.

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#### Defining and measuring Long COVID fatigue - a scoping review

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Background: Long COVID encompasses a range of symptoms in which fatigue is one of the most prevalent. There is no widely accepted definition of long COVID fatigue, and a number of ways in which it can be measured, resulting in inconsistencies across studies, limiting our understanding of Long COVID fatigue. This review explored and mapped the definitions and measures of Long COVID fatigue.

Methods: This scoping review followed JBI methodology and reports using the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping reviews (PRISMA-ScR). Medline, Scopus, CINAHL, PsycINFO, EMCARE, Web of Science, Epistemonikos, Cochrane Central Register of Controlled Trials, Dimensions, Overton, and ProQuest Dissertation & Theses Database were searched from January 2020 to May 2023. This review included quantitative and qualitative studies that included any definition of long COVID and/or measurement tool that purported to quantify either the impact, severity, or symptoms of long COVID fatigue.

Results: The search retrieved 9839 studies, of which 57 met the inclusion criteria. Only 21 (37%) provided a definition of fatigue. Definitions ranged across physical, mental, cognitive, emotional, psychosocial, central, peripheral, post-exertional symptom exacerbation and general dimensions of fatigue. Fifty-five (96%) used a measurement or assessment of fatigue. Twenty-six measures of fatigue were identified: 21 self-report measures (e.g. Fatigue Assessment Scale) and five fatigability measures that purport to reflect changes in physiological processes that contribute to or reflect fatigue (e.g. change in force generating capacity of a muscle).

Conclusions: The definitions identified demonstrate considerable diversity, each highlighting different dimensions of long COVID fatigue. There is an urgent need to better understand long COVID fatigue and to identify the different mechanisms involved. In order to do this, we need consistency with the language around fatigue and its measurement within research and across disciplines.

### The interplay between fatigue, interoception, the autonomic nervous system and psychological variables in individuals with long COVID fatigue

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Background: Approximately 1.9 million people in the UK were still experiencing long COVID as of March 2023, with fatigue as one of its most common and debilitating symptoms. This study will look at the dimensions of long COVID fatigue, and how it affects individuals during different activities.

Guided by the Common-Sense Model of Self-Regulation, we aim to investigate how illness beliefs and emotional symptoms (anxiety and depression) predict long COVID fatigue dimensions (physical, cognitive, social). We will consider how awareness of internal body signals, may also intensify fatigue by examining how interoception predicts fatigue dimensions. Finally, we will consider the role of autonomic nervous system (ANS) in long COVID fatigue, and how it predicts fatigue dimensions.

Understanding dimensions of long COVID fatigue, and how they are associated with illness beliefs, emotions, interoception and ANS dysfunction, will allow us to deepen our understanding of long COVID fatigue to inform effective interventions.

Hypothesis 1. Within individuals with long COVID there will be differences in the level of fatigue reported across dimensions (physical, cognitive, social).

Hypothesis 2. Illness beliefs, emotional symptoms, interoception, or autonomic symptoms will predict the level of fatigue reported I. physical, II. cognitive, III. Social.

Methods: This study will involve individuals with long COVID fatigue aged 18 years or above. The online survey will consist of six sections: (1) participant demographics; (2a) severity of fatigue (2b) severity of fatigue (2c) impact of fatigue (3) illness beliefs (4) emotions (5) interoception and (6) autonomic symptoms.

A series of analyses will be conducted for the characteristics of the participants and a series of inferential statistics to test our hypothesis.

Results: The study is currently ongoing and will be completed by June 2025.

Conclusions and implications: The study is currently ongoing and will be completed by June 2025.

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### Latest findings from the newly validated Cancer Research UK Cancer Awareness Measure 'Plus' (CAM+) 2024 survey

#### Dr Vicky Whitelock1, Kirstie Osborne1

<sup>1</sup>Cancer Research UK

Background: Cancer awareness, attitudes and behaviours play a critical role in early detection, diagnosis and treatment outcomes. The original Cancer Awareness Measure (CAM) survey was developed and validated in 2007-2008 by Cancer Research UK (CRUK), University College London, Kings College London and University of Oxford to address the lack of a validated measure of the public's awareness of cancer. Since 2014 Cancer Research UK have continually updated, modified and expanded the questions in response to external changes and evidence gaps, with subsequent versions of the survey accordingly referred to as CAM 'Plus' (CAM+). The CAM+ measures a range of attitudes and behaviours in addition to traditional awareness, on key topics across cancer prevention, screening and early diagnosis. In 2023/24 the CAM+ survey was revalidated. The aim of this research is to collect data using the newly validated CAM+ and provide an update on the UK's public's attitudes, awareness and behaviours across key topics within the survey.

Methods: Data will be collected in November 2024 by YouGov Plc from a nationally representative sample of ~6700 adults (aged 18+) in the UK.

Results: Descriptive results on the latest attitudes, awareness and behaviours of the UK public will be shared as well as any variation by key sociodemographic groups.

Conclusions and Implications: The findings from CAM+ can be used to identify priority cancer topics and groups, inform public health interventions and shape the development of appropriate policy aimed at addressing health inequalities and enhancing the efficacy of prevention and early detection efforts.

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#### **Encouraging early detection of bowel cancer**

#### Phillipa Williams<sup>1</sup>, Andy Glyde<sup>2</sup>, Mikaela Green<sup>1</sup>

<sup>1</sup>Claremont Communications, London, UK, <sup>2</sup>Bowel Cancer UK, London, United Kindgom

Background: Bowel Cancer UK and Claremont worked with people living with bowel cancer, academics, and public audiences to co-design a behaviour change intervention to encourage people with suspected bowel cancer symptoms to seek help sooner. We focused on the most under-served e.g. people with lower incomes and from Black and South Asian heritage.

Methods: We conducted a literature review and COM-B analysis to identify the critical barriers to address, including fear, fatalism, embarrassment, and distrust of GPs. Creative territories were devised by working with a co-design group of people living with bowel cancer. Focus groups and individual interviews were conducted with our target audiences (52 participants) to verify initial COM-B analysis, build messaging, strategic campaign proposition and creative strategy.

Results: The final campaign (launched in May 2024 and due to finish in March 2025) addressed our audience's behavioural barriers to engagement – building hope and motivation, rather than fear. It also built sustained awareness by running a pulsed campaigns over a longer period, rather than a traditional awareness campaign spike.

Mid-point results show high campaign recall and a steeper effect on intention to contact the GP among target audiences, and an increase in reported behaviour among people experiencing symptoms contacting their GP and receiving at-home test (FIT).

Conclusions and implications: Fear, fatalism, embarrassment and distrust of GPs are critical barriers to seeking help, and striking the right balance of hope and urgency is essential to encourage action. Unintended consequences present a significant risk to communications aimed at encouraging under-served audiences to seek help sooner. Words and phrases effective with general audiences e.g. 'rule out Bowel Cancer fast' made our audiences fearful and less likely to act. Being present in communities for a continual period helps build recall and prompt action. Finally, co-designing is vital to mitigate unintended consequences

## Think Brain Health: promoting behavioural lifestyle changes in under-represented adults aged 40-60 to reduce their dementia risk

#### Phillipa Williams<sup>1</sup>, Mikaela Green<sup>1</sup>

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Background: Claremont and Alzheimer's Research UK worked together to conduct research to promote behavioural lifestyle changes in adults aged 40-60 from South Asian, Black British, Black African, Black Caribbean and South East Asian to reduce their dementia risk

Methods: This was a mixed methods research that started with a literature review and COM-B analysis to understand these populations and their barriers and motivations to reduce risks of dementia. We performed cluster analysis and developed a segmentation model to determine key drivers for behaviour and define different population segments (sample of 1000 participants). This was followed by a qualitative phase, where we conducted focus groups and interviews (41 participants in total) to verify the initial COM-B analysis, segmentation model, and test strategy and interventions.

Results: Different segments were identified. For instance, 53% believed health is pure luck and health outcomes are not under their control; 67% stated that going to the doctor often slips down their list of priorities. Overall, attitudes towards health, community and family, knowledge of brain health and proximity to dementia were predictors of willingness to take-action. That is, behavioural and attitudinal factors are stronger predictors of reported willingness to take action, over demographics. The development of a personal brain health risk assessment appealed to all groups.

Conclusions / Implications: Alzheimer's Research UK are planning the next phase of the Think Brain Health Campaign informed by this research. When designing interventions and campaigns around this topic, values, behaviours, and motivations should be considered alongside demographics. We found that time constraints are often overlooked in a 40-60 year old population (simple and easy actions are needed to encourage change).

Awareness alone does not prompt action, we found that people want to know what to do and how to do it (action-based approaches)

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The Tribulations of Trials: Lessons Learnt Recruiting 777 Older Adults Into REtirement in ACTion (REACT), a Trial of a Community, Group-Based Active Aging Intervention Targeting Mobility Disability

<u>Janet Withall</u><sup>1</sup>, Afroditi Stathi<sup>1</sup>, Colin Greaves<sup>1</sup>, Max Western<sup>2</sup>, Janice Thompson<sup>1</sup> on behalf of the REACT study team

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Background: Challenges of recruitment to randomised controlled trials (RCTs), and successful strategies to overcome them, need to be clearly reported to improve recruitment success in future trials. REtirement in ACTion (REACT) was a multi-centre RCT recruiting older adults at high risk of mobility disability to a 12-month group-based exercise and behaviour maintenance programme with a 24-month follow up.

Methods: The recruitment target was 768 sedentary participants with functional limitations, scoring four to nine (inclusive) on the Short Physical Performance Battery (SPPB).

Recruitment methods included: a) invitations mailed by General Practitioners (GPs); b) invitations distributed via third sector organisations (community groups and sheltered housing facilities); and c) a public relations (PR) campaign. Yields, efficiency and costs for each method were calculated.

Results: Over a 20-month recruitment period 25,559 invitations were issued. Eighty-eight percent of participants were recruited via GP invitations, 5.4% via the PR campaign, 3% via word-of-mouth and 2.5% via third sector organisations. The mean recruitment cost per participant was £77.59, with £26.54 per recruit paid in Service Support Costs to GP practices by the *Clinical Research Network*. The total sample randomised was 777 (33.9% men) sedentary, community-dwelling, older adults (mean age 77.55yrs (SD 6.79), mean SPPB score 7.37 (SD 1.56)). The sample was 95.11% white (n=739) and spread across Index of Multiple Deprivation quintiles: Q1 11.07%, Q2 20.21%, Q3 20.46%, Q4 20.08% and Q5 28.19%, where Q1 is most deprived.

Conclusions: The REACT study successfully recruited to target, with randomised intervention and control groups well-balanced in terms of baseline characteristics; however predicted response rates and recruitment timescales required adjustment. Targeted efforts are needed to achieve more ethnically diverse cohorts. The Clinical Research Network is an effective mechanism for recruiting via General Practitioners. Written invitations from General Practitioners were the most efficient method for recruiting community-based older adults at scale.

Effects of Digital Interventions Promoting Lifestyle Changes on Blood Pressure for People with Hypertension in Sub-Saharan Africa: A Systematic Review

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Background: Hypertension poses a significant public health challenge globally. Lifestyle changes play a pivotal role in managing hypertension and reducing cardiovascular risk. Digital technology has emerged as a promising

tool to facilitate lifestyle modifications. However, no previous systematic review has considered the unique challenges of delivering digital hypertension interventions in sub-Saharan Africa. The aim of this systematic review is to synthesise the evidence on the effectiveness of digital interventions promoting lifestyle changes on blood pressure for adults with hypertension in Sub-Saharan Africa.

Methods: We registered (CRD42024338644) and conducted a systematic literature search for relevant studies published between 1st July 2003 and 30th December 2023. Inclusion criteria were: randomised controlled trials (RCTs) evaluating the effect of digital interventions promoting lifestyle modification to reduce blood pressure in adults delivered in Sub-Saharan African countries.

Results: Two studies with 1490 adult participants met the inclusion criteria. Different interventions, text messaging and telepharmacy, were used for blood pressure reduction and improving medication adherence, physical activity and diet. In study 1: the mean change was -2.2 mmHg (95% CI: -4.4 to -0.04) for information only and -1.6 mmHg (95% CI: -3.7 to 0.62) for the interactive messages compared to usual care. Study 2 reported a mean reduction in systolic blood pressure of -13.3 mmHg (95% CI: -9.2 to -17.4) in the telepharmacy intervention group compared to usual care. The risk of bias assessment for the studies ranged from low to high.

Conclusion: Digital interventions show promise for improving blood pressure and medication adherence among hypertensive patients in Sub-Saharan Africa. However, the current evidence base is limited, highlighting the need for more rigorous, well-designed trials to evaluate the effect of diverse digital health strategies on blood pressure control and lifestyle behaviour change.

# Influences on the decision for young women aged 16-24 to participate in mental health surveys for data collection and policy

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Background: Mental health surveys require a population-representative sample to provide valid information. Young women aged 16-24 are a high-risk group for common mental health disorders yet they are underrepresented in mental health surveys. This study aimed to identify how surveys can be improved to encourage participation from 16-24-year-old women.

Methods: Four focus groups were undertaken with a total of fifteen 16-23-year-old women. The semi-structured interview protocol was based on the COM-B model and aimed to explore the factors that influence participation in mental health surveys. Framework Analysis was used to identify facilitators and barriers with findings mapped to the Theoretical Domains Framework. The study benefited from the contributions of a PPI group of nine young women aged 16-24 years. The PPI group highlighted the most important aspects to focus on in the study and co-designed study materials ensuring these were appropriate and acceptable.

Results: Eight themes were constructed: keeping participants' attention; making surveys easy to access; feeling powerful; identity; benefiting oneself; experiencing mental health stigma; trusting the survey; and connecting to others. Within each theme, barriers and facilitators to 16-24-year-old women participating in mental health surveys were identified.

Conclusions and implications: The barriers and facilitators give insight into how research could be improved to encourage participation in future mental health research. This study offers suggestions how study advertisements, participant information and design of the actual survey can be presented in alternative formats to improve recruitment and retention to mental health surveys. These barriers and facilitators will be

used to develop an intervention to explore whether participation from a population-representative sample of 16-24 year old women can be encouraged. The different intervention components will be evaluated by the APEASE framework (acceptability, practicability, effectiveness, affordability, and equity).

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