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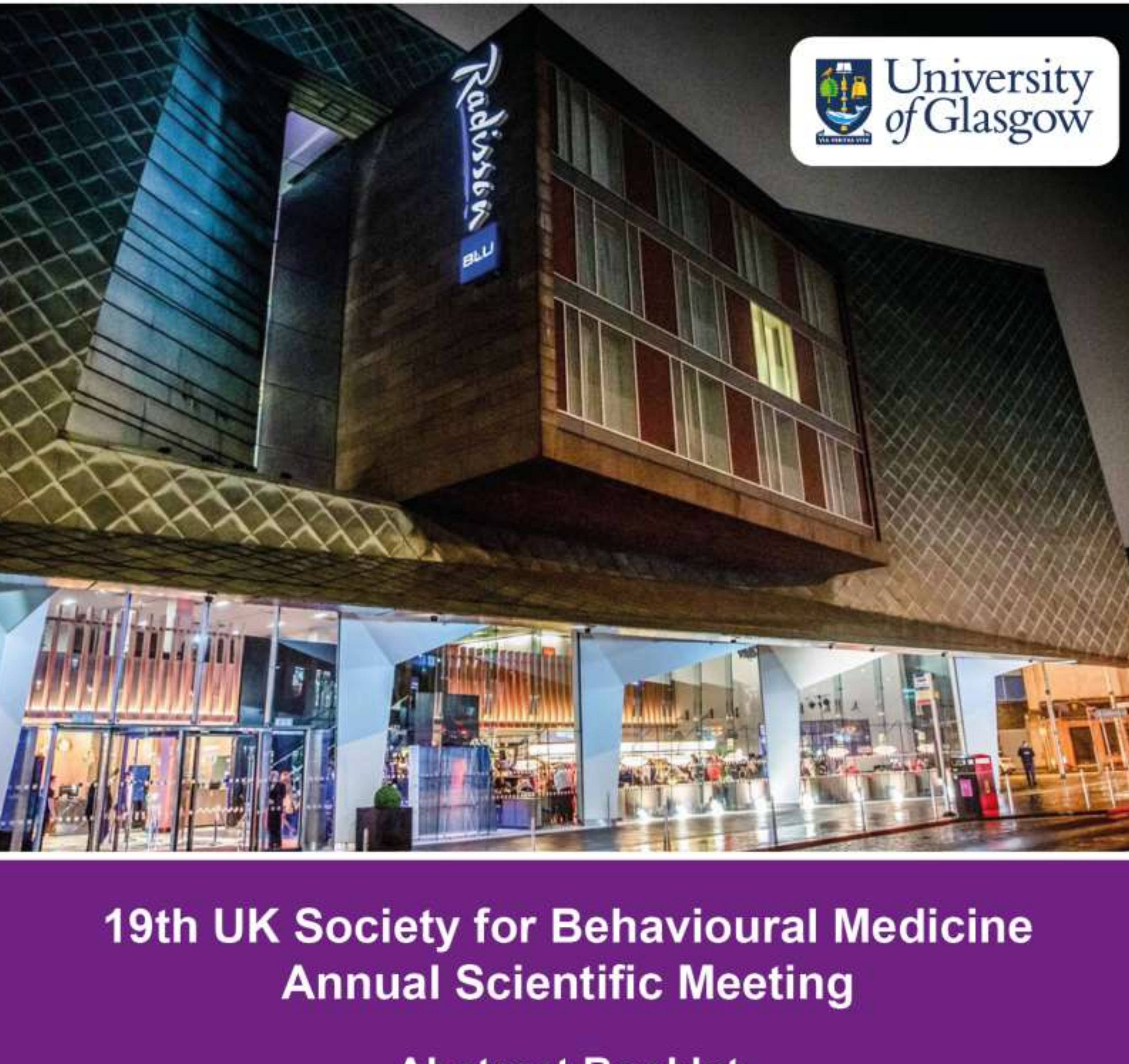

University of Glasgow

19th UK Society for Behavioural Medicine Annual Scientific Meeting

Abstract Booklet

Wednesday 13th - Thursday 14th March 2024
Radisson Blu, Glasgow

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Keynote Presentations (Wednesday)

Understanding and Preventing Suicide in a Changing World

Prof Rory O'Connor
University of Glasgow

In this presentation, I will outline the scale of the challenge of preventing suicide. I will highlight the central role of behavioural science in mapping out the pathways from suicidal thoughts to suicidal acts. In addition, I will describe the growing evidence for psychosocial interventions to reduce suicide risk. In short, I will present an overview of some of our clinical, experimental and intervention studies to illustrate how psychological, physiological and social factors increase suicide risk and what we all can do to tackle suicide. The wider implications for the prevention of suicide will also be discussed.

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Can tobacco harm reduction interventions reduce smoking-related inequalities?

Dr Sharon Cox
University College London

Smoking rates are higher amongst the poorest and especially high among those with additional health and social needs. There is an urgent need to reduce smoking related inequalities and newer non-combustible products, if delivered effectively, may help to do this. This talk will provide an overview of current smoking related disparities, highlight where opportunities exist and present the latest findings of where there has been success and what lessons we can learn to shape better interventions.

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Keynote Presentations (Thursday)

From epidemiology to intervention–the Born in Bradford City Collaboratory approach to reducing pollution and improving population health

Prof Rosie McEachan
Bradford Institute for Health Research

Born in Bradford is a longitudinal multi-ethnic birth cohort and applied research programme that aims to improve population health and reduce inequality by tracking the lives of over 60,000 Bradfordians. It works closely with city stakeholders and communities to drive research into practice. Co-production is embedded throughout all stages of our research.

Pollution is one of the biggest contributors to ill-health and non-communicable disease globally. The ill-effects of pollution are experience more acutely by already vulnerable groups, increasing health inequalities. In this talk I will outline how we have used a City Collaboratory approach to drive the development, implementation and evaluation of air quality intervention and the Bradford Clean Air Zone within Bradford. Using findings from our UKPRP funded ActEarly and NIHR funded BiB Breathes projects I will outline how we have worked to co-produce policy with communities, and present key findings from our ongoing evaluation of the Bradford Clean Air Zone. I will reflect on the challenges and opportunities of researchers, communities and stakeholders working in partnership to implement evidence-based practice.

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Behaviour Change in the Climate Emergency

Dr Esther Papies
University of Glasgow

Climate change is an ongoing and escalating public health emergency. It may reverse decades of health progress, and threatens the health and wellbeing of billions of people through extreme weather events, displacement, food insecurity, pathogenic diseases, societal destabilisation, and armed conflict. Climate change dwarfs all other challenges studied by behavioural scientists. The greenhouse gas emissions driving climate change disproportionately originate from the actions of wealthy populations in the Global North and are tied to excessive energy use and overconsumption driven by the pursuit of economic growth. Addressing this crisis requires significant systems transformations and individual behaviour change. Most of these changes will benefit not only the stability of the climate but will yield significant public health co-benefits. Because of their unique expertise and skills, behavioural scientists are urgently needed to drive these societal transformations. I will propose specific ways in which behavioural scientists at all career stages can contribute to this challenge, and will illustrate this with recent research from my lab on behaviour change in the context of food system transformations, on energy and resource use, and on mental health. I will also discuss behaviour change among behavioural scientists in our roles in teaching, policy advocacy, within organisations, and as private citizens. As behavioural scientists, we cannot sit back and leave climate change to climate scientists. Climate change is a health emergency that results from human behaviour; hence it is in our power and responsibility to address it.

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Wednesday 13th March

Prize Winning Presentations

The largest ever RCT?! Evaluating a digital behavioural intervention via every GP practice in England using the OpenSAFELY platform: Results from the Germ Defence COVID19 Trial

Dr Ben Ainsworth[1], Prof Jeremy Horwood[2,3], Dr Scott Walter[2,3], Dr Sascha Miller[1], Dr Melanie Chalder[3], Prof Frank De Vocht[2,3], Dr James Denison-Day[1], Dr Martha Elwenspoek[2], Dr Helen Curtis[4], Dr Chris Bates[5], Dr Amir Mehrkhar[4], Dr Seb Bacon[4], Prof Ben Goldacre, OpenSAFELY Collaborative, Dr Pippa Craggs[3], Prof Richard Amlôt[3,6], Prof Nick Francis[1], Prof Paul Little[1], Prof John MacLeod[2,3], Prof Michael Moore[1], Dr Kate Morton[1], Cathy Rice[1], Prof Jonathan Sterne[2], Prof Beth Stuart[7], Dr Lauren Towler[1], Dr Merlin Willcox[1], Prof Lucy Yardley[1,2,3]
[1]University of Southampton, [2]NIHR Applied Research Collaboration West (NIHR ARC West), [3]University of Bristol, [4]University of Oxford, [5]TPP, [6]UK Health Security Agency, [7]Queen Mary University of London

Background: We wanted to evaluate a digital behavioural public health intervention, Germ Defence, during the COVID-19 pandemic. Germ Defence (www.germdefence.org) had been trialled during other contexts (e.g. for Swine Flu) but we needed to rapidly implement and evaluate the intervention at scale. OpenSAFELY is a secure software platform that can analyse electronic health records data across the NHS.

Methods: We ran a prospective, two-arm (1:1 ratio) cluster RCT in every primary care practice across England. We co-developed and piloted the efficient trial extensively. Half of practices (N=3292) were asked to disseminate Germ Defence to all adult patients via text, email or social media. The usual care practices (N=3287) maintained standard management for the 4-month trial.

Our primary outcome was rate of GP presentations for respiratory tract infections (RTI) per patient, analysed within OpenSAFELY. We also looked at other infection rates (COVID-19 and GI), healthcare utilisation, and intervention use for each practice.

Results: OpenSAFELY outcome data was available for 2498 practices (representing 24.2 million patients). Negative binomial modelling found no evidence of a difference in the rate of RTIs between intervention and control practices (rate ratio 1.01, 95% CI 0.96-1.06, p = 0.70), similar across all outcomes.
Germ Defence was used 310,731 times. Patient engagement within intervention practices ranged from 0 to 48% of patients.

Conclusions: We didn't see a difference in health outcomes, with low practice dissemination and patient engagement - possibly due broad contextual factors (eg. other public health messaging during the pandemic). However, we demonstrated that rapid large-scale implementation of digital behavioural interventions is possible. Interventions can be evaluated efficiently by analysing routinely collected patient data entirely within a trusted research environment.

Implications: Rapid large-scale implementation of a digital behavioural intervention is possible. Further work should explore how this design can be applied to other types of intervention.

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Suicide and self-harm prevention: a research priority for Premenstrual Dysphoric Disorder (PMDD)

Julie Riddell[1], Dr Lynsay Matthews[2]
[1]MRC/CSO SPHSU, University of Glasgow, Glasgow, United Kingdom, [2]University of the West of Scotland, Paisley, United Kingdom

Background: Premenstrual Dysphoric Disorder (PMDD) is a severe hormone-based mood disorder that impacts 1 in 20 women (and AFAB* individuals). In the UK alone, over 824,000 women have PMDD of which, 593,600 will experience suicidal ideation, 412,000 will self-harm and 275,000 will attempt suicide. To investigate research and funding priorities, we co-developed UK's first research agenda for PMDD.

Methods: We undertook a multi-step co-design process. Step 1: focus groups with five different stakeholders per group (people with lived experience, health professionals, mental health crisis services, support organisations and researchers, n=25). Step 2: an online consultation from interdisciplinary stakeholders (n=208). Step 3: a consensus workshop (n=6). Step 4: launch of the final research agenda.

Results: Suicide and self-harm prevention was identified as one of the top 5 PMDD-research priorities. Participants identified key areas regarding the links between PMDD and suicide and self-harm and other conditions which included other mental health conditions OR neurodiversity. Participants reflected on the impact of PMDD and the frustrations brought about by a lack of awareness or resources available to support the mental health of those living with PMDD. Through consultation with a variety of stakeholders we identified key areas where the impact of PMDD on suicide and self harm interventions could be targeted and identified potential opportunities for intervention

Conclusions and Implications: Understanding the mechanisms of PMDD and its associated health issues is key to preventing suicide and self-harm. We are integrating PMDD research agenda data by co-developing a systems map and programme theory for suicide prevention. This work will improve screening, identification and management of PMDD patients including those requiring suicide and self-harm related support.

*assigned female at birth

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Parallel Session A

A.1 Symposium: Increasing bowel cancer screening uptake: medical, behavioural science and public health practitioner perspectives

Increasing bowel cancer screening uptake: medical, behavioural science and public health practitioner perspectives

Convenor: Chantal den Daas, University of Aberdeen
Discussant: Marie Johnston, University of Aberdeen

Purpose: The uptake of bowel cancer screening is lowest of all the health screening programmes in Scotland and can be particularly low in certain populations. Varied approaches to increase bowel cancer screening are needed to optimise uptake, aid early detection of bowel cancer, and ultimately save lives.

Objective: To present different, complementary approaches to increasing bowel cancer screening uptake from different academic and practice perspectives.

Rationale: Interventions to increase bowel cancer screening uptake can take different forms, from policy, to individual targeted and tailored approaches, to general population interventions that can also impact social influences on behaviour, to practical outreach. Increasing uptake will require a combination and in this symposium different perspectives will be presented.

Summary: Katie Robb (Prof of Behavioural Science and Health) will present the rationale and results of TEMPO, a three arm randomised controlled trial, which aims to increase uptake of FIT bowel screening by enhancing the personal invitation letter. Chantal den Daas, (Senior Lecturer in behaviour in Disease prevention), will discuss the development and delivery of Public Health messaging designed to increase uptake of bowel cancer screening developed using behaviour change theory and techniques. Jane Chandler (Health Improvement Specialist at NHS Highlands), will present public health practitioner work on increasing uptake in communities with low socio-economic status. Discussion will be led by Marie Johnston. Finally, Bob Steele (Clinical Director of the Scottish Bowel Screening Programme) will present the case for screening, the importance of high rates of uptake, but also focus on potential harms of screening, and the potential for behavioural interventions.

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Increasing uptake of colorectal screening: a trial testing a suggested deadline and a planning tool

Kathryn A. Robb[1], Marie Kotzur[1], Ben Young[1], Colin McCowan[2], Gareth J. Hollands[3], Audrey Irvine[4], Sara Macdonald[1], Alex McConnachie[1], Ronan E. O'Carroll[5], Rory C. O'Connor[1], Robert J.C. Steele[6]

[1] School of Health & Wellbeing, University of Glasgow, Glasgow, UK, [2] School of Medicine, University of St. Andrews, St. Andrews, UK, [3]EPPI Centre, UCL Social Research Institute, University College London, London, UK, [4] Scottish Bowel Screening Centre, NHS Tayside, Dundee, UK, [5]Psychology, University of Stirling, Stirling, UK, [6]School of Medicine, University of Dundee, Dundee, UK

Background: Participation rates in colorectal cancer (CRC) screening remain suboptimal. The objective was to evaluate the impact of: a suggested deadline for return of faecal immunochemical tests (FITs); a planning tool; and the combination of a deadline and planning tool on return of FITs for CRC screening.

Methods: A randomised controlled trial of 40,000 adults aged 50-74 mailed FITs in the Scottish Bowel Screening Programme. Participants were randomised to one of eight groups: 1) no intervention; 2) suggested deadline (1-week); 3) suggested deadline (2-weeks); 4) suggested deadline (4-weeks); 5) planning tool; 6) planning tool plus suggested deadline (1-week); 7) planning tool plus suggested deadline (2-weeks); 8) planning tool plus suggested deadline (4-weeks). The primary outcome was FIT return at three months. Results were analysed using logistic regression.

Results: Any suggested deadline increased the odds of a FIT being returned at three months (OR:1.13[1.08, 1.19]). The planning tool on its own had no impact on FIT return (OR: 0.98 [0.94, 1.02]). There was a significant interaction between the interventions (p=0.0041) such that the effect of the deadline on FIT return was enhanced by the addition of a planning tool (OR: 1.21 [1.13, 1.30]), while the effect of the planning tool was detrimental to FIT return in the absence of a deadline (OR: 0.88 [0.81, 0.96].

Conclusions and implications: A suggested deadline for kit return and a FIT planning tool are highly cost-effective interventions that could be easily implemented, through adding a sentence to the invitation letter and including a sheet of paper, respectively.

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Poo to you: Testing theory-driven messages to increase bowel cancer screening

den Daas, C[1], Chandler J[2], Allison T[2], Dixon D[1,3], Dryden J[2], Fry R[4], Hubbard G[5], Stephenson L[2], Johnston, M[1]
[1]Health Psychology group, Institute of Applied Health Sciences, School of Medicine, Medical Sciences, and Nutrition, University of Aberdeen, Aberdeen, UK, [2]Public Health and Policy, NHS Highland, Inverness, UK, [3]School of Applied Sciences, Edinburgh Napier University, Edinburgh, UK, [4]Communications and Engagement, NHS Highland, Inverness, UK, [5]Department of Nursing and Midwifery, University of the Highlands and Islands, Inverness, UK

Background: Early detection of bowel cancer can save lives, yet certain groups have low uptake of bowel cancer screening. Theory-based public health messages to increase uptake were co-designed with NHS professionals. We tested whether the messages changed intention to screen as predicted by theory.

Methods: Messages about using the screening kit immediately when it arrives, were developed to address evidence-based Mechanisms of Action (MoA), which were translated into behaviour change techniques. In an online cross-sectional survey using Prolific (N=404), people over 50 years (M=59.85, SD=7.31, N=248 (61.7%) female, N=384 (95.3%) white) were presented with one of the four selected messages (MoA: self-efficacy, norms, action cue, or emotion) or no message. Participants reported their past behaviour, negative beliefs about bowel cancer screening, and test intentions. After testing, effective messages were implemented through NHS Highland social media.

Results: Past behaviour significantly affected intentions, F(2,384)=158.55, p<.001, pη2=.45. Intention were highest for participants who had used a kit previously, lowest for those who had not, and people who had never received a kit fell between. The self-efficacy and emotion-based messages increased intentions but only for participants with negative beliefs about screening and who either had not yet received a kit or who had not used a kit previously, F(14, 370)=4.29, p<.001, pη2=.14. The social norm message reduced intention to use the kit compared to the no message condition in those participants who had not yet received a kit, F(4,384)=3.88, p<.001, pη2=.004. Implementation of three messages in practice reached over 6000 people, and 164 people actively engaged.

Conclusions and implications: The messages did not increase intention to screen as predicted from theory and some even had detrimental effects. Thus, even theory-based interventions benefit from pre-testing to select messages to implement, evaluating the impact on behaviour and ultimately on bowel cancer detection.

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Understanding and increasing bowel cancer screening uptake in low socio economic communities: A public health practitioners perspective

Chandler J[1*], Johnston M[2], Allison T[1], Dixon D[2,3], Dryden J[1], Fry R[4], Hubbard G[5], Stephenson L[1], den Daas C[2]

[1]Public Health and Policy, NHS Highland, Inverness, UK, [2]Health Psychology group, Institute of Applied Health Sciences, School of Medicine, Medical Sciences, and Nutrition, University of Aberdeen, Aberdeen, UK, [3]School of Applied Sciences, Edinburgh Napier University, Edinburgh, UK, [4]Department of Nursing and Midwifery, University of the Highlands and Islands, Inverness, UK, [5]Communications and Engagement, NHS Highland, Inverness, UK

Background: Since the Scottish Bowel Screening Programme was introduced within NHS Highland in 2009, participation has varied across the eligible population, being lower among men than women and lower among individuals living in our most deprived communities relative to people resident in our more affluent areas. To help understand the contributing factors and inform activity to address this, NHS Highland has implemented several approaches to understand behaviour and increase participation.

Methods: In 2016 efforts were made to engage individuals living in our most deprived communities through undertaking qualitative interviews. Interview responses helped to inform approaches to increase screening participation. These included community specific approaches (i.e., context specific outreach through volunteer champions), tailored communication campaign and the implementation of a GP endorsement project which was shown to increase uptake of bowel screening. The responses from the interviews undertaken in 2016 have more recently (September 2023) been plotted against the theoretical domain framework (TDF) to illustrate the reasons for non-participation.

Results: Reasons for non-uptake were heterogeneous and could be mapped on almost all components of the TDF. For example, Memory: ‘I forgot to do it this time, but I have done it before’, and Identity: ‘Men feel it is a weakness to do a test and will leave it’. Since the interviews some barriers to participation have been addressed, for example the national introduction of the bowel screening FIT kit in 2017 has made participation in bowel screening easier.

Conclusions and implications: There is no one size fits all to increasing uptake in underserved communities. Instead, in practice increasing uptake requires understanding of the behaviour, and flexible implementation of approaches to increase uptake that fit with the target population. This will require a high level of understanding and effort to tailor approaches to the target population.

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Harms of screening: an overview

Bob Steele
School of Medicine, University of Dundee, Dundee, UK

Screening is associated with obvious benefit – improved outcomes from early detection of a disease or its precursor. However, screening has the potential to cause considerable harm, and although less obvious than the benefits, the harms resulting from screening are more numerous. Perhaps the best recognised adverse effects are overdiagnosis and consequent overtreatment, especially in prostate and breast cancer, but all types of cancer screening are affected including that for bowel cancer. Complications of procedures either directly related to the actual screening process or taking place at a later stage of the pathway are also a concern and require close attention to quality control. Certificate of health, or the reassurance conferred by a negative screening test result, can lead to adverse behaviours in terms of lifestyle and appreciation of the importance of symptoms. Psychological distress of varying degree can be engendered at multiple stages of the screening pathway and, while extremely difficult to quantify, is likely to represent a massive burden on the population to whom screening is offered. No screening test is perfect and false negative test results are inevitable in any programme. The process therefore has the ability to create false expectations, and the balance between providing transparent information to allow informed choice and maintaining high levels of uptake constitutes a major challenge. Screening also exacerbates existing inequities since rates of acceptance of screening invitations are highly correlated with socio-economic status. Finally, screening programmes are expensive and must inevitably divert resource from other aspects of health care. It is therefore crucial that screening programmes are introduced only when they are supported by the highest quality of evidence, and for cancer, this means randomised trials where randomisation takes place at the point of invitation (not at the point of agreeing to randomisation), that employ mortality endpoints and that quantify harm.

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A.2 CHILDREN'S HEALTH

(Oral Presentations)

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Promoting healthier food in secondary schools: Stakeholder views on actions for enhancing school food policy and practice

Dr Alexandra Dobell[1], Dr Marie Murphy[1], Prof Miranda Pallan[1]
[1]University of Birmingham, Birmingham, United Kingdom

Background: Current school food policy in England includes the Schools Food Standards and School Food Plan. Recent evaluation indicates that these policies are poorly implemented in secondary schools. This research aimed to bring together the views of multiple stakeholder groups involved in or impacted by policy in secondary schools, to identify actions for enhancing school food policy and practice.

Methods: Workshops (in person/online) were held with six stakeholder groups (young people; parents; local authority representatives; school catering representatives; third sector representatives; and school leaders, governors, and teachers) comprising interactive small group activities for generating potential solutions for enhancing school food policy and practice. Workshops were recorded and transcribed. Thematic analysis of verbal/written workshop data was undertaken and resulted in the identification of “action areas” for school food. Summary descriptions and examples were drafted for each action area. A grey literature search was carried out to identify any additional actions beyond those identified through the workshops.

Results: Thirteen workshops were held with 175 participants (young people n=46; parents n=34; local authority n=34; caterers n=25; third sector n=24; schools n=12). Eighteen relevant reports were identified from the grey literature search. A total of 26 action areas were identified. These were mapped onto six secondary school food system elements: catering and procurement; school leadership and governance; food environments beyond school; the food space and experience within schools; priority of food within schools; and funding for school food.

Conclusions and implications: Stakeholders have identified that secondary school food policy and practice can be enhanced via a range of actions at multiple levels i.e. national government, local government, schools, families and students. These findings can be used to help design future school food policy and initiatives for supporting secondary school children to achieve healthier dietary intakes.

* * *

Sexual Harassment in Scottish Secondary Schools: Preliminary Baseline Data from the Equally Safe at School Randomised Trial

Anthony Purvis[1,2], Claire Hamilton[1,2], Caroline Vaczy[1,2], Carolyn Blake[1,2], Ruth Lewis[1,2], Malachi Willis[1,2], Kirstin Mitchell[1,2]
[1]University of Glasgow, [2]MRC/CSO Social and Public Health Sciences Unit,

Background: Schools should be safe environments, but many students unfortunately experience sexual harassment. Sexual harassment in adolescence can lead to men’s violence against women later in life. Our randomised trial examining the effectiveness of the Equally Safe at School (ESAS) whole-school intervention is collecting baseline data to estimate the prevalence and context of sexual harassment in Scottish secondary schools.

Methods: We are recruiting 36 secondary schools in Scotland (half start ESAS immediately, half start one year later). All students receive the intervention; students in Years 2 (age 13), 4 (age 15) and 6 (age 17) are eligible for the evaluation surveys. Our primary outcome is sexual harassment victimisation—defined as experiencing at least one of five types of sexual harassment at school, or on the way to/from school, in the past two months. Using schools that have completed the baseline survey by February 2024 (~25), we will present preliminary data on sexual harassment victimisation by gender and school year, including associations with wellbeing and school community variables.

Results: In a pilot school, we found that 34.7% percent of students (n = 98) reported experiencing at least one type of sexual harassment; half of those reported at least two types. Girls were more likely than boys to report experiencing multiple types of sexual harassment, p=.042. Sexual harassment victimisation did not vary by school year, p=.908.

Conclusions and implications: The whole-school approach to ESAS requires teachers, students and policymakers wanting to address sexual harassment. Twelve months after baseline, we will conduct a follow-up survey to compare sexual harassment victimisation in schools that have implemented ESAS with those that have not yet started. This evidence will help education sector decision-makers review how to address sexual harassment in schools. If ESAS is successful, it could be implemented in more schools throughout the UK.

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A mixed methods systematic review of interventions to improve adolescent sleep across the socioecological model

Catriona Ewart[1], Prof Sharon Simpson[1], Dr Joanna Inchley[1], Dr Anne Martin[1]
[1]University of Glasgow, Glasgow, United Kingdom

Background: Insufficient, poor-quality sleep among adolescents is a growing public health concern. Current efforts to improve adolescent sleep have largely focused on individual-level behaviour change programs, with limited population level impact. Therefore, effective public health promotion may require multilevel interventions targeting various factors across the socioecological model. This mixed-methods systematic review aims to identify sleep interventions delivered across the socioecological model and examine their effectiveness and feasibility.

Methods: Five electronic databases were searched to identify qualitative and quantitative studies published between 2003 and 2023. Additional studies were identified by screening reference lists, grey literature and contacting field experts. Inclusion criteria were adolescents aged 10 – 19 years (population), participating in an intervention aimed at improving sleep (intervention), either randomized and non-randomized trials (comparator), and reporting improvements in sleep quality and/or quantity and qualitative data reporting intervention feasibility (outcomes). Screening, extraction, and risk of bias assessment were performed by two independent reviewers, with reviewer two screening a random 20% of articles. Data was synthesized and reported narratively to describe study characteristics and intervention effectiveness. Final results are expected by May 2024.

Results: Thirty-eight articles were included in this review across 18 different countries. Studies (n = 18) targeted adolescents reporting sleep complaints including poor sleep, evening chronotype, and insomnia symptoms. Preliminary findings indicate that 28 programs targeted the intrapersonal level (e.g., cognitive behavioural therapy), 3 targeted the interpersonal level (teacher and parent-based programs), 3 targeted organisational level (schools, workplace), 1 policy level (online restrictions) and 3 delivered multilevel interventions.

Conclusion: Preliminary findings indicate that intervention efforts are primarily focused on the individual, failing to address the complex interaction of factors influencing adolescent sleep across the socioecological model. This review will help identify gaps and opportunities to inform the design and implementation of future interventions to improve adolescent sleep.

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A.3 MEDICINES OPTIMISATION

(Oral Presentations)

Supporting GPs and people with hypertension to maximise medication use to control blood pressure: A pilot cluster RCT of the MIAMI intervention

Prof Gerard Molloy[1], Dr Eimear C Morrissey[1], Louise O'Grady[1], Dr Patrick Murphy[2], Prof Andrew Murphy[2]
[1]School of Psychology, University of Galway, Galway, Ireland, [2]HRB Primary Care Clinical Trials Network Ireland, Discipline of General Practice, University of Galway, Galway, Ireland

Background: The MIAMI intervention is designed to support General Practitioners (GPs) and people living with hypertension to maximise medication use to control blood pressure. It contains GP targeted components (30 minute online training, booklet and consultation guide) and patient targeted components (Urine chemical adherence test, pre-consultation plan and informational videos). The aim of this study was to gather and analyse acceptability and feasibility data to allow (1) further refinement of the MIAMI intervention, and (2) determination of the feasibility of evaluating the MIAMI intervention in a future definitive RCT.

Methods: A pilot cluster RCT with an intervention arm and a usual care control arm was conducted. Patient participants were eligible to take part if they were older than 65, taking 2 or more anti-hypertensive medications and had a blood pressure >130/80 mmHg. Quantitative data collection took place at baseline and 3 months. Semi-structured interviews with participants took place at 6 weeks and 3 months. Fidelity and health economic costings were also assessed.

Results: Six general practices and 52 people living with hypertension were recruited. All 6 practices were retained. Four patient participants were lost to follow up (8%). Fidelity, as measured on a study delivery checklist, was good but there were three processes that were not delivered as intended. Two of these were minor processes, but the third was the delivery of the urine test results, which often did not occur due to delays in the delivery of results and some confusion around accuracy. The qualitative data demonstrated that the urine test component is not feasible in its current form but the other intervention components had good feasibility and acceptability.

Conclusions and Implications: Some modifications are required to the MIAMI intervention components and research processes but with these in place progression to a definitive RCT is considered feasible.

Trial registration: ISRCTN85009436

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Exploring Barriers and Facilitators to Statin Adherence: A Mixed-Method Systematic Review using the Theoretical Domains Framework (TDF).

Javiera Rosenberg[1], Dr Gaby Judah[1], Smaragda Lampridou[1], Dr Sara Garfield[2], Dr David Wingfield[1,3]
[1]Imperial College London, London, United Kindgom, [2]University College London, London, United Kingdom, [3]Hammersmith &Fulham Partnership, London, United Kindgom

Background: Despite the well-established benefits of statins in reducing cardiovascular disease (CVD) mortality and morbidity, adherence to statin medication remains suboptimal worldwide. Modifiable factors explain why nonadherence occurs and are promising to be targeted at behaviour change interventions. This systematic review aimed to synthesise published literature reporting barriers and facilitators to statin adherence and explore differences between groups of patients.

Methods: A comprehensive search strategy was used to gather quantitative, qualitative and mixed-methods studies reporting modifiable factors of statin adherence. The search was conducted on Embase, MEDLINE, PsycInfo and CINAHL. Data were extracted and coded to the Theoretical Domains Framework domains, and inductive thematic analysis within domains was employed to identify specific barriers or facilitators to statin adherence.

Findings: We identified 70 studies reporting modifiable factors of statin adherence, of which one focused on minority populations. Factors influencing statin adherence most are related to ‘beliefs about consequences’, ‘knowledge’, ‘social influences’, ‘reinforcement’, ‘emotions’, and ‘behavioural regulation’. Examples of barriers included not perceiving statins' benefits, knowledge about statin therapy and experiencing side effects. Patient-provider communication and trust, and receiving follow-ups and cholesterol monitoring were common facilitators. Patients in primary prevention discussed more frequently using alternative strategies to lower cholesterol instead of statins and negative beliefs about pill-taking. Lack of support from family members and feeling helpless and frustrated were more salient barriers to secondary prevention. Financial concerns were not associated with statin adherence in most studies.

Conclusions and Implications: Our study aligns with previously identified effective behaviour change techniques to increase statin adherence, such as using credible sources and social support. Furthermore, it has identified additional modifiable factors overlooked in past reviews, providing valuable insight for statin adherence interventions. Future studies should focus on the challenges that ethnic minorities or disadvantaged communities face to tailor these interventions to individual needs and barriers.

Optimising an intervention to support medication adherence in women with early-stage breast cancer: The ROSETA pilot trial

Prof Samuel Smith[1], Sophie Green[1], Emma McNaught[1], Prof Christopher Graham[2], Hollie Wilkes[1], Pei Loo Ow[1], Rachel Ellison[3], Christopher Taylor[1], Prof David French[4], Dr Louise Hall[1], Dr Nikki Rousseau[1], Dr Daniel Howdon[1], Dr Rebecca Walwyn[1], Dr Jane Clark[5], Jacqueline Buxton[6], Sally Moore[6], Prof Jo Waller[7], Erin Raine[1], Ellen Mason[1], Dr Catherine Parbutt[5], Prof Galina Velikova[5], Prof Amanda Farrin[1], Prof Robbie Foy[1], Michelle Collinson[1]
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Background: Adherence to adjuvant endocrine therapy (AET) in women with breast cancer is low. Informed by the multiphase optimization strategy, we developed a multicomponent intervention targeting key barriers to adherence. We undertook a pilot optimisation trial to establish key trial parameters, component adherence, feasibility of data collection, and proof of principle.

Methods: This multi-site, external pilot trial used a 24-1 fractional factorial design (ISRTCN10487576). We planned to randomise 80 women, with early-stage breast cancer prescribed AET, to one of eight experimental conditions. In addition to usual care, each condition comprised a unique combination of four intervention components: text messages (target: memory); information leaflet (target: medication beliefs); Acceptance and Commitment Therapy (ACT) programme (target: distress) and; self-management website (target: side-effects). Follow-up was at 2- and 4-months post-randomisation. Key outcomes included medication adherence and quality of life. To decide whether to proceed to an optimisation trial, we predefined green, amber and red criteria for consent rates, adherence to intervention components and availability of medication adherence data.

Results: Of 175 women approached, 141 (81%) were eligible and 52 (37%) randomised (green). Ten (19%) women withdrew. 43 (83%) women provided data at 2-months, and 41 (79%) at 4-months. Adherence to the components was good (green): 75% (SMS), 63% (leaflet), 63% (ACT), and 73% (website). At least 75% of data were available for one of our three measures of medication adherence (VOILS-Dose) (amber). We could not obtain prescribing data, and ceased data collection early for one self-reported adherence measure. No significant signals of effectiveness were noted for medication adherence at 2-months. A small negative effect of the leaflet was noted at 4-months (estimated difference=0.177, p=.02).

Conclusions and implications: Women adhered well to the intervention components, but amendments are required to improve recruitment rates in the optimisation trial. Further consideration of medication adherence outcomes is needed.

Barriers and facilitators to adherence to guideline-recommended therapy in patients with peripheral artery disease: A qualitative study

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Background: Guideline-recommended treatment to improve symptoms and delay disease progression in peripheral arterial disease (PAD) patients includes a combination of pharmacotherapy (antiplatelet and lipid-lowering agents), and lifestyle changes focusing on smoking cessation and exercise therapy. Following these guidelines can reduce major cardiovascular and limb events by 40% and increase life expectancy by six years. Despite these benefits, adherence to PAD treatment is low, and there is currently no qualitative research exploring the perceptual and practical adherence barriers.

Methods: Patients with varied sociodemographic backgrounds and adherence levels, at different stages of PAD diagnosis, were purposively selected through a pre-screening survey. One-on-one virtual or face-to-face semi-structured interviews were conducted. The Perceptions and Practicalities Approach framed the topic guide and guided data analysis. Interviews were audio recorded, transcribed verbatim, and analysed using inductive thematic analysis.

Results: Twelve PAD patients participated. The age of participants ranged from 56 to 78. Patients were diagnosed with PAD from 6 months to 15 years. Two patients were adherent to all treatment domains, whilst two patients were non-adherent. Two patients discontinued their statin due to experiencing side effects, whilst one patient refused to take any medications. Most patients were current smokers (75%), whilst almost two-thirds were exercising daily. Four perceptual themes: i) treatment necessity and effectiveness, ii) concerns, iii) information, iv) mind-matter; and three practical themes: i) physical challenges, ii) daily routine, iii) environment and interactions were identified. Patients perceiving their treatment to be effective were more likely to be adherent. However, some patients did not perceive being on treatment as they were not getting better.

Conclusions and Implications: Participants expressed a lack of support and a need for detailed information and individualised care. To enhance adherence future research should focus on improving treatment understanding, addressing claudication pain management, and supporting patients being more motivated to make changes.

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A.4 FOOD AND ALCOHOL

(Oral Presentation & 5 in 5 presentations)

Presentations identified with ❖ at the beginning of the title are a 5 slides in 5 minutes presentation

Red and Processed Meat Consumption Behaviours in Scottish Adults

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Background: In 2021, 32% of adult meat consumers in Scotland exceeded the 70g/d recommended limit of red and processed meat (RPM) intake. Understanding RPM consumption behaviours in Scotland is particularly important considering the Scottish Government have partially accepted the UK's Committee on Climate Change recommendation to reduce meat consumption by 20% by 2030.

Methods: This analysis used data from adults (≥16y) in the nationally representative 2021 Scottish Health Survey. Dietary data were from 1-2 online 24-hour dietary recalls. Consumers were grouped into tertiles representing low, medium and high RPM consumers. Overall, and across tertiles, we explored demographics, the timing of consumption (day of the week and meal occasion), where RPM was purchased and consumed, and investigated food group contributors to intake. We descriptively explored survey results, and used a multivariable ordinal logistic regression model to test for differences in consumer tertiles by demographic subgroups (age, gender, Scottish Index of Multiple Deprivation).

Results: Mean daily intake of RPM among high consumers was 117g/d (95% CI 112-121). Men and individuals living in the most deprived areas were more likely to be high consumers than women ($P<0.001$) and those in least deprived areas ($P=0.001$), respectively. Dinners accounted for the majority of intake among high (55%) consumers, while low consumers distributed intake between lunch (40%) and dinner (48%). Across all tertiles, consumption was highest on Sundays, and out-of-home consumption accounted for 13%-14% of intake. Beef dishes and sandwiches were primary contributors among high consumers, while low consumers had a greater contribution from bacon and ham.

Conclusions and implications: These insights could inform messaging strategies to support the provision of actionable steps to cut down meat intake effectively, particularly among high consumers. Strategies focussing on modifying traditional meat-centric dishes and sandwiches, particularly those purchased from supermarkets, could be impactful in Scotland.

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An intervention to increase availability of vegetarian meals in worksite cafeterias for promoting healthy and sustainable meal choices

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Background: To curb the negative health and sustainability impacts of high meat consumption in affluent countries, effective and acceptable interventions to reduce meat consumption are needed. Increasing the availability of vegetarian relative to meat-based meals has previously shown promise in university canteen settings but need to be tested in more diverse socio-economic environments.

Methods: This is the first study to evaluate the effectiveness, feasibility, and acceptability of an availability intervention in a randomised controlled trial including worksite cafeterias with customers from various socio-economic backgrounds. Employing a stepped-wedge design, six worksite canteens were randomised to implement an availability intervention by substituting one meat-based meal with a vegetarian alternative at different starting time points across a six-week period.

Results: Data collection concluded on 1st of December and data analysis is underway. Testing the hypothesis that increasing the relative availability of vegetarian options increases their sales, a multilevel linear regression will predict weekly sales percentage of vegetarian meals out of total meals sold as the main outcome variable, using intervention vs. control period as the main predictor. Results will also be presented for secondary outcome variables including health outcomes (calories purchased), environmental impact (based on four environmental indicators), food waste, and canteen revenue changes. Initial insights from cafeteria managers' feedback suggest that feasibility and acceptability was very good in high socio-economic environments but low elsewhere, and that the intervention had little impact on food waste and revenue across all sites.

Conclusions and implications: To assess effectiveness, feasibility, equitability, and acceptability of this intervention, the results will be interpreted in context of socio-economic markers of the different worksites taking part, feedback given by intervention implementers (e.g. cafeteria managers), and secondary outcomes such as food waste and revenue losses.

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The evaluation of the Scottish Borders/Food Train Eat Well Age Well implementation of the Patients Association Nutrition Checklist

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Background: The Patients Association Nutrition Checklist (the ‘Checklist’) is a freely available tool that can be used to identify older adults at risk of malnutrition at an early stage and provide signposting to nutrition advice and support. This study aimed to assess the feasibility, and the perceived impact for stakeholders, of Checklist-rollout by 12 service provider partner organisations (SPPO), including social care, housing and voluntary sectors, in the Scottish Borders.

Methods: A mixed-method design, incorporating observational and process evaluation of Checklist-implementation, was utilised. Quantitative data included online surveys and operational data provided by SPPOs. Qualitative data included interviews with SPPO staff implementing the Checklist and the delivery partner.

Results: The Checklist was completed with 461 older adults, of which 7.4% were considered at risk of malnutrition. Implementation methods varied across SPPOs. SPPO staff perceived the Checklist to be easy to use; facilitate difficult conversations with older adults and referrals to additional services (dietetics, GP); and be quick to deliver, costing £4.17-£6.83 per older adult. Barriers to using the Checklist included: 1. too little time at appointments; 2. older adult capacity/communication issues; and 3. resource issues, some relating to the COVID-19 pandemic. Perceived outcomes included improved skills and confidence identifying and managing malnutrition (SPPO staff) and health improvements (older adults).

Conclusions and implications: Implementation of the Checklist may bring about outcomes, as described in the intervention Logic Model, including increased awareness of malnutrition, improved conversations and prevention of older adult ill-health. Recommendations for future implementation include encouragement (through additional training and support) of Checklist-implementation at strategic level and use of the Checklist by implementers with all older adults, as intended.

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❖The characteristics and impact of interventions in small food stores to support healthier diets: A systematic review

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Background: Dietary behaviours are a major risk factor for premature mortality globally. One fourth of grocery retailer sales in the UK are from chained and independent convenience stores and small local grocers. However, current evidence on the effectiveness of interventions to support healthier diets in small, independent stores is limited. This systematic review aims to generate an overview of the characteristics and impact of healthier eating interventions in small food stores on food purchasing and dietary outcomes.

Methods: In June 2022, we searched CENTRAL, Medline, Embase, CINAHL, and Science Citation Index & Social Science Citation Index. We included original studies that measured sales, availability, nutritional quality, portion sizes or dietary intake outcomes of interventions aiming to change food purchasing habits or store environments in food stores described as small, independent, local or community-based. Study quality was assessed using the Mixed Methods Appraisal Tool (MMAT). We developed a narrative synthesis and harvest plots. Results were structured using the Nuffield ladder of interventions (categorising interventions based on intrusiveness).

Results: Of 4,624 records screened, we included 22 studies reporting 20 interventions involving 843 food stores. Study quality and heterogeneity inhibit robust inference. However, most interventions recorded some positive effects on the availability or purchases of healthier products. Consumption was rarely measured, with no evidence of any effect. Interventions acted on multiple points of the Nuffield ladder, but more commonly at the lower end, involving educational messages and we found no clear evidence of higher-level interventions. Community support such as connecting stores with community groups appears vital for intervention success.

Conclusions and Implications: Small food stores are an important source of food and disproportionately so for some communities. High quality research is needed to test interventions to support healthier food purchasing that can be implemented in these settings and are supported by the community.

❖A pilot trial of self-incentive plans for the reduction of harmful alcohol consumption

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Background: The highest rates of UK alcohol-specific deaths were recorded in 2022. This is considered a major public health priority. Prior research has shown that self-administered incentives are effective for improving other health behaviours and have the potential to promote reductions in hazardous alcohol consumption. The aim of the present study was to pilot the use of self-incentives to promote reductions in alcohol consumption.

Method: Sixty-five participants consuming hazardous levels of alcohol or bingeing each week were invited to take part in the study. Forty-four participants agreed to take part and were randomised to: a) form an overall plan to reduce their alcohol intake (n=22), or (b) self-incentivise (i.e., plan to reward themselves if they had reduced their alcohol intake by the end of each week) (n=22). A mixed ANOVA was used to generate effect sizes to determine if self-incentives are promising to use in future randomised controlled trials.

Results: A significant interaction effect was found for condition x time, F(2,41) = 3.44, p = .042, ηp2 = .144. Alcohol consumption decreased over time for the intervention condition, F(2,20) = 3.63, p = .045, ηp2 = .266, but not for the control condition. Mean units of alcohol increased from baseline (M = 19.02) to 1-month follow-up (M = 21.41) in the control condition, compared to the decrease seen from baseline (M = 13.75) to 1-month follow-up (M = 6.73) in the intervention condition. There was also a significant main effect for condition, F(1,42) = 9.78, p = .003, ηp2 = .189.

Conclusions/Implications: Use of self-incentive plans show promise for reducing hazardous alcohol consumption. Furthermore, the large-sized effect generated by the intervention suggests a fully powered randomised controlled trial is needed to assess the potential of self-incentivising to begin to address this major public health priority.

Impact on beer sales of removing the pint serving size: an A-B-A reversal trial in pubs, bars and restaurants

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Background: Smaller serving sizes could contribute towards reducing alcohol consumption across populations and thereby decrease the risk of seven cancers and other diseases. The current study is the first to assess the impact on beer sales of removing the largest draught serving size (one imperial pint) from the options available in licensed premises.

Methods: The study was conducted in thirteen licensed premises in England. It used an A-B-A reversal design, set over three consecutive 4-weekly periods. “A” represented the non-intervention periods, during which standard serving sizes were served. “B” represented the intervention period, when the largest serving size of draught beer (one imperial pint or 568ml) was removed from existing ranges, so that the largest size available was the 2/3 pint. Where 2/3 pints were not usually served, the intervention included introducing this serving size in conjunction with removing pints. The primary outcome was the mean daily volume of all beer sold (in ml), extracted from electronic sales data. Secondary outcomes were mean daily volume of wine sold (ml), and daily revenue (£).

Results: Thirteen premises completed the study, 12 of which did so per protocol and were included in the primary analysis. After adjusting for pre-specified covariates, the intervention resulted in a mean daily reduction of 2772.5ml (95% CI -4233.8 to -1589.9, $p<0.001$) or 9.6% (95% CI -13.4% to -6.1%) in beer sold. The daily volume of wine sold increased during the intervention period by 233.7ml (95% CI 13.4 to 484.2, $p=0.035$) or 7.3% (95% CI 0.4% to 14.7%). Daily revenues decreased by 5% (95% CI -9.6% to -0.3%).

Conclusion and implications: Removing the largest serving size (the imperial pint) for draught beer reduced the volume of beer sold. Given the potential of this intervention to reduce alcohol consumption, it merits consideration in alcohol policies.

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A.5 HEALTH SERVICES

(Oral Presentations)

Establishing an updated consensus on the conceptual and operational definitions of Making Every Contact Count (MECC) across experts within research and practice internationally: a Delphi Study

Beth Nichol[1], Dr Emma Kemp[1], Prof Rob Wilson[1], Dr Angela M. Rodrigues[1], Prof Hannah Hesselgreaves[1], Craig Robson[2], Prof Catherine Haighton[1]
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Background: The Making Every Contact Count (MECC) initiative is broadly defined as an opportunistic approach to prevention by making use of the thousands of conversations service providers have with service users every day. However, since its conception, the application of MECC has diverged and developed considerably. Thus, the current study aimed to revise the definition according to current research and practice to better describe what is and is not included.

Methods: A consensus building Delphi methodology was applied, namely an online survey of three rounds (the minimum number required), completed by an expert panel. Round one asked open questions around the definition of MECC. Content analysis of round one identified statements that were rated for agreement in round two. Statements achieving >80% agreement were included in a short, long, or operational definition of MECC that were rated for agreement in round three. An agreement of >80% indicated consensus.

Results: Forty out of 100 contacted experts completed all three rounds. From round one, 274 statements were generated, of which 96 achieved consensus and were included within round three. The short and long definition received consensus in round three, the operational definition required four rounds to reach consensus.

Conclusions and implications: MECC is a person-centred approach to health behaviour change that, provided an individual possesses the relevant skills, can be delivered by anyone and anywhere. The distinguishing feature of MECC is not in its duration, target behaviour, or conditions for delivery, but rather in the approach taken and the mechanisms applied to conversations. The results provide guidelines for measuring intervention fidelity for any future MECC research. Further implications for research and practice are discussed, and the limits for applicability acknowledged.

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The relationship between perceived ease of use and adherence to remote monitoring tasks in patients receiving NHS virtual care services.

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Background The NHS has ambitious targets for increasing virtual beds. Care delivered at home requires adherence to monitoring devices. We explored the relationship between ease of use (EOU) scores and adherence to three distinct remote monitoring tasks in virtual care services.

Methods De-identified data were aggregated from three NHS Trusts using the Current Health platform for their virtual ward services from March 2021 to August 2023.

Patients wore a vital signs monitor on the upper arm (n=870), took their blood pressure (n=864), and completed surveys (n=870) delivered via tablet. All patients received the 6-question Ease of Use (EOU) subsection from the Telehealth Usability Questionnaire (TUQ, 7-point Likert scale response, “strongly agree”=7). Kruskal Wallis rank tests were used for continuous variables.

Results There were 870 patients. 436 were female (50.6%) and mean age was 67.4 (SD 14.8) years. Median adherence to: arm wearable = 94.3% (IQR 88.9-97.3%, n=870), self-administered blood pressure = 81.4% (IQR 68.3- 91.7%, n=864), and surveys = 83.3% (IQR 62.0-100%, n=870).

EOU summary score was 5.7 (SD 1.4). The relationships between wearable and survey adherence with the EOU summary score, were not statistically significant (p=0.35, p=0.28, respectively). The relationship between blood pressure adherence and the EOU summary score was statistically significant (p=0.005).

Conclusions and Implications As virtual wards scale, understanding factors affecting patient adherence is critical. Although patients reported high EOU scores and had high levels of adherence to all three tasks, blood pressure (lowest median adherence) was associated with the EOU summary score. This indicates that perceived EOU, or the added complexity of the task, may have influenced adherence. Virtual ward providers should be mindful of task complexity and perceived EOU when specifying protocols, assessing adherence, and targeting education.

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Training healthcare professionals in behaviour change tools and techniques for medication adherence support: Evaluation of five years of workshops

Dr Sarah Chapman[1], Michelle Pun[2], Dr Jessica Walburn, Tessa van Leeuwen[2], Prof John Weinman[1]
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Background: Medication nonadherence leads to avoidable morbidity, mortality and costs to healthcare systems. Research has identified effective interventions to support adherence led by healthcare professionals. However, many healthcare professionals lack training in tools and behaviour change techniques to identify and address nonadherence. The Centre for Adherence Research and Education aimed to address this gap through training healthcare professionals in use of an adherence screening tool and behaviour change techniques.

Methods: 450 healthcare professional attendees of structured introductory adherence workshops were asked to rate their confidence in identifying and addressing nonadherence (scales from 0-10), pre-training, immediately post-training and 1-month post-training. Qualitative and quantitative questions explored satisfaction with training and tools, use of the adherence screener, and implementation in practice.

Results: 390 participants completed pre-measures (45% pharmacists); they felt more confident and competent to identify (Median=7) than address (Median=6) nonadherence. 263 attendees completed immediate post-training measures; perceived confidence to identify and address nonadherence (Identifying Median=8, addressing Median=7) significantly ($p<0.01$) increased. Satisfaction with training was high (Median=8/10). For the 89 people who completed 1 month follow-up these increases appeared to be sustained but no formal statistical comparison was possible. But, only 12 people reported use of the screener at 1 month. Content analysis of qualitative feedback indicated that participants perceived behaviour change techniques and tools as patient-friendly, logical, usable and clear for both patients and clinicians, but raised concerns about available consultation time and feasibility in their individual working context.

Conclusions and implications: Healthcare professionals felt more confident to identify and address nonadherence after training. But, implementing evidence-based tools was challenging within existing models of practice. Future work is needed on very brief techniques for adherence support; integrating tools into existing practice (e.g. electronic systems) to facilitate routine use; tailored training for particular healthcare contexts and, most importantly to evaluate effects on patients.

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Lengthy shifts and decision fatigue in out-of-hours primary care: a qualitative study

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Background: Demands on healthcare workers are high: services are stretched, shifts are long, and healthcare professionals regularly work lengthy periods without a break. Spending time continuously ‘on task’ changes decision-making in predictable ways. According to the ‘decision fatigue’ phenomenon: decisions become progressively less cognitively effortful as the time worked without a break increases. Decision fatigue has been observed repeatedly in quantitative observational studies; however, healthcare workers’ subjective experiences have not been explored. This qualitative study aimed to investigate health professionals’ subjective experiences of working lengthy periods, self-perceived changes in decision-making over a work shift, and use of mitigating strategies to avoid changes in decision-making over time.

Methods: Semi-structured qualitative interviews were conducted. The interview sample (n=10) comprised of advanced nurse practitioners (ANPs, n=5) and general practitioners (GPs, n=5) who regularly worked within the out-of-hours primary care service in National Health Service (NHS) Grampian, Scotland. An inductive thematic analysis was conducted to identify and summarise salient issues articulated by participants.

Results: Most ANPs and GPs perceived changes in their decision-making across shifts consistent with the decision fatigue phenomenon. Related changes in behavioural, physiological, emotional, and cognitive responses such as increased seeking of support from colleagues, tiredness, worry, and loss of attentional focus were identified. GPs and ANPs identified barriers and facilitators to consistent decision-making relating to workload, social aspects, their own physiological state, systems, and identity. They reported using strategies that help them make consistent decisions, including self-regulation, structural strategies, and routine approaches to task.

Conclusions: Our study is the first to explore health professionals' subjective experiences of decision fatigue. The findings highlight barriers and facilitators of consistent decision-making when working for extended periods, which should be explored and addressed. Strategies utilised to support consistent decision-making should be reviewed for effectiveness and possible refinement and expansion.

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Barrier and Facilitators of MECC implementation within the North East and North Cumbria region (NENC) of England: a mixed methods design

Dr Angela Rodrigues[1], Bethany Nichol[1], Dr Rob Wilson[1], Caroline Charlton[1], Beckie Gibson[1], Dr Tracy Finch[1], Dr Catherine Haighton[1], Dr Gregory Maniatopoulos[1], Dr Emma Giles[2], Dr Deborah Harrison[3], Denise Orange[4], Craig Robson[5], Jill Harland[5]
[1]Northumbria University, [2]Teesside University, [3]Newcastle University, [4]OHID, [5]Northumbria Healthcare NHS Foundation Trust

Background: The Making Every Contact Count (MECC) programme provides training and materials to support organisations to encourage health-promoting behaviour change by utilising the day-to-day interactions between public-facing workforce and individuals. This project aimed to analyse MECC implementation through a comparative analysis of implementation stage, strategies, and facilitators/barriers of the process in the North East and North Cumbria (NENC) in England.

Methods: A mixed methods process evaluation (September 2021 to December 2022) was conducted applying Normalisation Process Theory and Theoretical Domains Framework. MECC programme documents were reviewed (n = 5) and mapped against specific criteria (e.g implementation strategies; MECC implementation guide). An online mapping survey (n = 34) was conducted to establish current implementation/delivery of MECC within NENC settings (e.g local government, NHS, and voluntary community sector). Qualitative research, using individual interviews (n = 18) and group discussions (n = 60), was conducted to establish further understanding of MECC implementation.

Results: Overall, the implementation of MECC within the region was at an early stage. Qualitative findings highlighted factors that influence stakeholders to implement MECC (e.g organisational goals that were facilitated by MECC implementation, including the prevention agenda), supported resources that facilitate the implementation of MECC (e.g logic models), and enabling factors that promote MECC sustainability across the region (e.g buy-in from leadership and management).

Conclusion: The NENC MECC programme is distinguished by its regional leadership, laying the foundation for a dynamic implementation process. Through a comprehensive evaluation of MECC implementation, we have identified a spectrum of multi-level barriers and facilitators across the region. Our co-produced recommendations for policy and practice promote targeted strategies tailored to bolster future MECC implementation (e.g. proposing the development of a standardized infrastructure and strategy to effectively address the identified delivery and implementation challenges).

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Parallel Session B

B.1 Symposium: Social prescribing: Multiple perspectives on its potential and challenges

Social prescribing: Multiple perspectives on its potential and challenges

Convenor: Gozde Ozakinci, Prof of health psychology, University of Stirling
Discussant: Prof Stewart Mercer, Prof of Primary Care, Multimorbidity,University of Edinburgh and GP

Purpose: Social prescribing: a non-medical intervention linking individuals to community-based opportunities for health and wellbeing benefits, has gained widespread attention in recent years. Its potential to accompany medical care and provide solutions that fit individual needs is recognised, alongside the challenges in designing impactful and evidence-based social prescribing programmes. In this symposium, we will hear multiple stakeholder perspectives, including service users, link workers, and health care professionals about social prescribing and its development and successes.

Objective: The first objective is to share contemporary research on social prescribing programmes, their development, and the challenges and potential solutions to programme delivery and success. The second objective is to provide a platform to discuss findings and the potential for these programmes with the audience.

Rationale: Social prescribing has rapidly developed and attracts passionate engagement from its practitioners and the voluntary sector. The sustained development of a robust evidence base is essential so that policies around its development can be based on rigorous evidence. Development of these programmes is challenging and all stakeholder voices need to be included in the research and development process to ensure engagement and impact.

Summary: Presentation 1 will focus on two rural social prescribing evaluations and the discussion around how to best evidence outcomes. Presentation 2 will present findings from a study on the decision-making of link workers around food and physical activity practices. Presentation 3 will present two studies on loneliness and the importance of identity-based bonds in the context of social prescribing practices. Presentation 4 will focus on the potential of nature-based programmes for those with mental health issues and problem substance use.

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Rural social prescribing: findings from recent evaluations and directions for future research

Anna Terje, Sarah-Anne Munoz
University of the Highlands and Islands

Background: The aim of this paper is to outline the key contextual challenges faced by social prescribing services in rural areas. Drawing on two rural social prescribing evaluations, it provides an analysis of the complex skill set of link workers, and the resulting client outcomes, as well as reflections on future methodological directions for rural social prescribing evaluation.

Methods: This study is based on qualitative interviews with key social prescribing stakeholders, including link workers, their clients, third sector organisation representatives and health and social care professionals. The interviews were transcribed and analysed in NVivo using framework analysis.

Results: This paper will show the ways in which link workers use localised knowledge, third sector and statutory service networks, and imaginative approaches to meet the needs of clients in rural areas with complex social and wellbeing needs. Client outcomes include reductions in loneliness and social isolation, increases in confidence and empowerment, and increased self-management. However, how to best evidence these outcomes remains debated.

Conclusions and implications: Current research suggests that social prescribing can lead to positive outcomes for individuals in rural and dispersed areas. Due to the complex circumstances of social prescribing clients, the person-centred nature of the service, and the holistic approach it takes, policymakers must be open to consider outcome measures beyond those quantitative and financial. However, researchers and evaluators must also widen the focus and scope of research methods currently used to evaluate such programmes.

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Exploring social prescribers’ referral processes and decision-making about healthy eating and physical activity

Oana Petre[1], Julia Allan[2], Leone Craig[1], Flora Douglas[3], Janet Kyle[1], Abigail Stephen[1], Frank Thies[1]
[1]University of Aberdeen, UK, [2]University of Stirling, UK, [3]Robert Gordon University, UK

Background: Social prescribing connects primary care patients with non-medical sources of support in the community. There are various social prescribing models, with different referral routes. Many involve patients being referred to a link practitioner, also known as a link worker, who considers their needs and then “prescribes” or links them to appropriate local support services or resources, typically provided by the third sector. The present study aimed to better understand the social prescribing process and explore the decision-making of link practitioners, particularly around food and physical activity practices.

Method: Sixteen semi-structured interviews were conducted with link practitioners working across Aberdeen City. A pragmatic Thematic Framework analysis was undertaken. Borrowing heavily from Grounded Theory approaches, a combination of deductive and inductive analysis was used to identify individual concepts and constructs from the interview transcripts.

Findings: Participating link practitioners described their approach with clients as building rapport and trust while maintaining boundaries and managing expectations, and their community role as resource mapping and networking. Three broad categories of factors were considered during referral: 1) practicality (e.g., location, transport, cost, mobility, availability), 2) clients’ engagement (e.g., interest, motivation, readiness for change), and 3) link practitioners’ past experiences with services. Challenges identified included navigating waiting lists and service limitations, clients’ engagement and expectations, under-resourced services, navigating waiting lists with caseloads and the emotional burden of seeing people in very difficult situations. All link practitioners considered diet and exercise to fit within the remit of social prescribing but emphasised that clients should lead this discussion. Dietary support via social prescribing typically revolved around poverty rather than health.

Discussion: The study provides insight into the practical reality of making social prescribing decisions and has the potential to inform training and evaluation processes and support the development of health-focused social prescribing lifestyle interventions.

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Barriers and facilitators of effective social connection for loneliness reduction and improved health during social prescribing: A social identity perspective

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Background: Unmet social needs such as loneliness have long been recognised as detrimental to mental and physical health. This is reflected in government investment in social prescribing (SP) yet calls for evidence of its effectiveness remain to encourage sustained governmental funding. Social identity research has provided a growing body of evidence on the ‘active ingredients’ of successful SP. This approach suggests success depend upon service-users’ ability to develop meaningful psychological connections within the community following referral. This session will presenting two qualitative studies revealing the conditions necessary for building the identity-based bonds needed for health improving social connection.

Methods: Two qualitative studies utilising semi-structured interviews were conducted. Study 1 involved 30 service users engaged in community group activities to promote social connection/loneliness reduction in Nottinghamshire. Study 2 (N=22) included 10 Link Workers, 7 Community Group Leaders, and 5 service-users involved in multiple SP pathways in England.

Results: Reflexive thematic analysis revealed both the barriers and facilitators of beneficial social connection in community groups. In Study 1, three themes evidenced: the identity processes associated with experiences of loneliness and isolation; the role of service group bonds and the conditions under which they form and are impeded; and engagement outcomes including increases in group membership, community connection, confidence, and mental health. In Study 2, three themes evidenced the importance of matching service-users to groups that fit their needs and supporting effective linking and group integration so service-users can develop a beneficial sense of fit, support, connection, and belonging with others.

Conclusions and Implications: Identity dynamics are critical to delivering health-benefiting social contexts providing social support and belonging. Individual needs and group dynamics must be carefully balanced and supported to foster health promoting SP experiences. Findings suggest that SP pathways must be appropriately resourced and supported during linking work and within the community.

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Could nature-based interventions be an effective way to support people with co-occurring poor mental health and problem substance use, and how might implementation guidance help?

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Background: In Scotland, access to greenspace reportedly saves approximately £2.5 million in mental health costs annually. Greenspace is increasingly being integrated into health policy across regions of Scotland through green prescribing, a type of social prescribing designed to improve physical and mental health and wellbeing through exposure to, and engagement with, nature. Emerging evidence has shown that nature-based programmes, such as therapeutic horticulture, care farming, and wilderness programmes, could be used to support people with co-occurring poor mental health and problem substance use (PSU). However, questions remain as to what the key components are within nature-based programmes which may lead to effective outcomes for this client group. Without this knowledge, buy-in to this type of non-pharmacological approach and integration into existing mental health and substance use treatment remains difficult.

Methods: Two sets of semi-structured interviews (n=17; n=28) were conducted with a range of stakeholders (service users, programme staff, wider health professionals, and local decision makers). Interview data were analysed inductively and deductively with the aim of refining an explanatory intervention framework for greenspace programmes for people with poor mental health and PSU.

Results: Findings indicated that greenspace programmes support people with poor mental health and PSU due to mechanisms relating to the themes of: feelings of escape; having space to reflect; physical activity; self-efficacy; feelings of purpose; relationships; and shared experiences. However, findings also highlighted predicted challenges around buy-in, funding, and unequal access to programmes.

Conclusions and implications: Findings support the potential for nature-based programmes for people with poor mental health and PSU as an alternative or complementary approach to traditional treatment. However, there are clear challenges for implementation. Findings provide insight into what could be the key areas of focus within intervention development which may allow more effective development and implementation of nature-based programmes in a funding sparse landscape.

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B.2 WOMEN'S HEALTH

(Oral Presentations)

Acceptance and Commitment Therapy for medication decision-making and quality of life in breast cancer: a randomised pilot trial

Prof Christopher Graham[1], Rachel Ellison[2], Dr Louise Hall[3], Dr Jane Clark[4], Emma McNaught[3], Pei Loo Ow[3], Sophie Green[3], Hollie Wilkes[3], Florence Day[3], Dr Gita Robson[4], Dr Ian Lorentz[4], Dr Lucy Holmes[4], Dr Nicky Bould[4], Suzanne Hartley[3], Ellen Mason[3], Dr Jay Naik[5], Dr Andrew Proctor[6], Sarah Buckley[7], Charlotte Hirst[2], Sue Hartup[4], Prof Robbie Foy[3], Prof Richard Neal[8], Prof Galina Velikova[4], Prof Amanda Farrin[3], Michelle Collinson[3], **Prof Samuel Smith**[3]
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Background: Non-adherence to adjuvant endocrine therapy (AET) in women with breast cancer is common and associated with medication side-effects and distress. We co-designed an Acceptance and Commitment Therapy (ACT) intervention to enhance medication decision-making and quality of life by improving side-effect self-management and psychological distress (ACTION). We undertook a pilot trial to inform the feasibility of conducting a definitive phase III trial, and to examine intervention acceptability and fidelity of delivery.

Methods: Women with early breast cancer prescribed AET were individually randomised (1:1) to receive usual care (UC) or UC+ACTION in a multi-site, exploratory, two-arm external pilot trial (registration: ISRCTN12027752). The ACTION intervention includes an individual ACT session followed by three group sessions all remotely-delivered by clinical psychologists. Participants are given access to a side-effect self-management website.

Results: Of 480 women screened for eligibility, 260 (54.2%) were approached and 79 (30.4%) randomized. 71 (89.9%) women provided data at 3-months and 70 (88.6%) at 6-months. Forty women were randomised to receive UC+ACTION, and of these, 32 (80%) attended their individual session and at least one group session. Of the 50 therapy sessions delivered within the trial, 49 (98.0%) scored ≥80% on the procedural fidelity checklist. Ten sessions were independently reviewed for their fidelity to the ACT model and all sessions scored ≥39% on the ACT Fidelity Measure. The ACTION intervention was acceptable to participants (Borkovec & Nau scale: mean = 7.8 [SD = 2.7] out of 10). Signals of efficacy in favour of the UC+ACTION group were observed for medication adherence (ASK-12), quality of life (WSAS), health-related quality of life (FACT-G and FACT-ES-19/23), and distress (GAD-7, PHQ-9).

Conclusions and implications: The ACTION intervention was acceptable, delivered with fidelity and showed preliminary evidence of efficacy. All predefined progression criteria were met, and a phase III randomised controlled trial is feasible.

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Women's experiences of accessing contraceptive services since March 2020: qualitative findings

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Background: The COVID-19 pandemic response prompted rapid changes to how contraceptive services were delivered in England. Our aim was to examine women's experiences of accessing contraceptive services since the start of the pandemic, both for new users of contraception and those with prior experience, and to understand any inequalities of access.

Methods: We conducted telephone interviews with 31 women aged 17-54 years old who had accessed contraceptive services in England since March 2020. The sample was skewed to include participants with lower educational attainment and living in areas of higher deprivation. Interview transcripts were thematically analysed using inductive and deductive approaches.

Results: Few differences in experience were found regarding educational attainment. Participants using contraceptive injections (all living in areas in the most deprived quintile), experienced the greatest access challenges causing some to switch to less preferred contraceptive methods or stopping contraception altogether. More general access barriers reported by participants included service closures, unclear booking processes, and lack of appointment availability. Many participants welcomed the flexibility and convenience of remote contraceptive services. However, telephone appointments posed challenges for those at school or living with parents, and some described them as rushed and inconducive to asking questions or raising concerns. Those

accessing contraception for the first time or nearing menopause felt they were unable to access sufficient support and guidance during the pandemic. Some participants voiced concerns around the lasting effects of COVID-19 on appointment availability and inadequate service delivery.

Conclusions and implications: Women's experiences of accessing contraceptive services in England since March 2020 are diverse. While remote services were suitable for some, COVID-19 restrictions unequally impacted women depending on their chosen contraceptive method and life stage. Policy must consider how individual needs are met and in-depth support provided if a more remote model of service delivery becomes routine practice longer term.

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Pain in early medication abortion: A qualitative analysis of women's accounts

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[1]The Open University, [2]Ulster University

Background: Pain in early medication abortion (EMA) is a known issue, indicated in a growing body of literature. The introduction of supported self-management of EMA in the UK means anticipatory guidance on pain requires review. Recent increases in UK abortion rates, combined with higher proportions of self-managed abortion, means realistic expectation setting and effective pain relief are more important than ever. Supporting health professionals to deliver this effectively has implications for informed consent and patient-centred care.

This paper explores accounts of pain during EMA, drawing on qualitative data from a wider study of abortion during the COVID-19 pandemic, co-funded by the Open University and Wellcome Trust. The aim of this analysis was to inform development of an intervention supporting best practice around pain in abortion care.

Methods: We recruited 20 people from across the UK who had sought abortion during COVID-19 restrictions, to participate in semi-structured telephone interviews. Participants were aged 22-43 and all self-identified as cisgender women. One participant was excluded as they had undergone surgical abortion.

Results: We constructed four sub-themes relating to pain: expected pain can be manageable; the problem with unexpected pain; pain (co)produces fear; problematising 'period-like pain'. A key issue highlighted is that, while EMA pain experience varies, for some it is much worse than anticipated. Moreover, likening it to 'period pain' is potentially misleading and a source of additional uncertainty.

Conclusions and implications: Our findings identify information and support gaps for those self-managing EMA at home. They foreground challenges in providing this information effectively, when no two experiences of self-managed EMA are the same. Future interventions should support realistic experiential information on the potential spectrum of pain experiences, emphasis that pain is subjective, and avoid the common trope of 'period-like pain' which can add confusion at an already challenging time.

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Adverse childhood experiences and anxious attachment may lead women to self-medicate, rather than consult their GP.

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Background: Adverse Childhood experiences (ACEs) can influence adult health, though the exact mechanisms remain unclear. ACEs are associated with insecure attachment styles in adult relationships (Erozkan, 2016) and women with ACEs may present maladaptive relational behaviours which exacerbate health symptoms (Bacon & White, 2022). This study combines these lines of enquiry to examine women's anxiety about consulting their General Practitioner (GP), and the likelihood of adopting complementary therapies or self-medication as an alternative. We predicted that ACEs would be associated with higher levels of anxious attachment (worry about rejection and availability of social support) and anxiety about GP consultations, and these factors would explain alternative treatment behaviours.

Methods: 200 women (Mage = 41.12, SD = 11.91) recruited through Prolific.ac.uk, completed an online survey comprising the ACE Questionnaire (Felitti, et al, 1998), Adult Attachment Scale (Collins, 1996), Fear of Physicians Scale (Richmond et al, 1998), and reported their frequency of choosing self-medication or complementary treatments.

Results: Higher ACEs were directly associated with anxious attachment (r = .31, $p > .001$). Fear of physician (operationalised as anxiety at consulting GP) was significantly associated with anxious attachment (r = .28, $p > .001$) and likelihood of self-medication (r = .27, $p > .001$). The relationship between ACEs and self-medicating behaviours was mediated by anxious attachment and anxiety at consulting GP, β = .01, 95% CI [.002, .01].

Conclusions and implications: Results suggest that experiences of adversity in childhood affect treatment behaviours through anxious attachment and associated anxiety about consulting a GP, resulting in a greater likelihood of self-medicating for non-minor illness. This explains one way in which ACEs influence adult health. If women avoid visiting their GP when unwell, they may not receive the treatment they need or manage long-term conditions effectively. This reinforces the importance of trauma-informed consultations in primary healthcare.

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Seeking help for stigmatised urogynaecological symptoms: a mixed methods systematic literature review.

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Background: Women's health is now recognised as a globally important subject. Several global and United Kingdom health policies emphasise the importance of improving information and access to urogynaecological services. Consequences of urogynaecological symptoms are intimate, personal, and varied, often causing embarrassment and shame, and affecting women's quality of life and wellbeing.

Aim: to understand the experience of seeking help for stigmatised urogynaecological symptoms, by synthesising all types of primary research and mapping the results to psychological theory, to identify potential behavioural targets for intervention.

Methods: Systematic search of MEDLINE, CINAHL, PsycINFO, SocINDEX, PubMed, CDSR and CENTRAL registers, from inception to May 2023, for all types of research capturing women's views and experiences of help-seeking with stigmatised urogenital and bowel symptoms in high income countries. A results-based synthesis approach integrated quantitative and qualitative data. Themes were mapped to the Common-Sense model and Candidacy framework. The Mixed Methods Appraisal Tool was used for critical appraisal; GRADE-CERQual for assessing certainty of review findings.

Results: 86 studies representing over 20,000 women from 24 countries were included. There was high confidence that barriers to help seeking were similar across study types and urogynaecological symptoms: stigma, participants' lack of knowledge, feeling clinicians dismissed their symptoms, and associated normalising and deprioritising of symptoms. Supportive clinicians and increased knowledge were key facilitators.

Conclusions and implications: Using the Common-Sense Model to explore women's help-seeking behaviour with stigmatised urogynaecological symptoms reveals problems with cognitive representation of symptom identity, emotional representations of embarrassment and shame, and a subjective norm that women expect clinicians will trivialise their symptoms. Together these barriers frustrate women's identification of their candidacy for healthcare. Addressing these issues through behavioural change interventions for women and clinicians will enable appropriate information provision for women, and expedite timely access to urogynaecological services (United Nations Sustainable Development Goal 3.7).

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B.3 WEIGHT MANAGEMENT AND HEALTHY EATING

(Oral Presentations)

Listen to yourself: How motivational interviewing shifts food choices and craving-related brain responses to healthier options.

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Background: Changing dietary patterns is challenging and Motivational interviewing (MI) has been proposed to overcome this challenge. MI seeks to strengthen motivation to a specific goal by eliciting statements for change, i.e. change talk (CT), and handling reasons against change, i.e., sustain talk (ST). Despite prior evidence of the influence of change talk (CT) on neural responses, the implications of this neurocognitive shift at both behavioural and neural levels remain unclear. This study explores value-based decision-making and the neurobiological craving signature (NCS) in relation to talk type.

Methods: Women (BMI<30kg/m^2) were invited to participate in two visits one-week apart: visit 1 to undergo a MI session from which five change and sustain talk statements were selected; and visit 2 to undergo a fMRI session focused on a dietary decision-making task. At the behavioural level, linear mixed-effects models tested whether food valuation differed as a function of the type of talk and food attribute, and a general linear model studied how food attributes were weighted during dietary choices. At the brain level, multilevel general linear models (GLM) were fit to fMRI time series to detect the encoding of: 1) food valuation, and 2) healthiness as a function of the type of talk. Additionally, NCS responses were measured in relation to healthy food valuation.

Results: We found that following CT, compared to ST, participants' food choices and activity in the ventromedial prefrontal cortex were more driven by the healthiness and less by the tastiness of food (behaviour: $p<0.001$, Cohen's d=0.7; brain: MNIpeak: =-8, 46, -8, small volume correction, pFWE<0.05). These findings were paralleled by lower NCS responses to tasty food after CT compared to ST ($p=0.03$, Cohen's d =-0.35).

Conclusions and implications: These results show that MI can shift value-based decision-making and reduce craving-related brain marker responses to highly palatable food items.

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A Systematic Review of Uptake and Adherence to Community Dietary Interventions in Populations With Low Socioeconomic Status, and Their Modes of Delivery

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Background: Socioeconomic status (SES) is related to obesity, with obesity rates in Scotland's most deprived areas higher compared to the least deprived areas. While the community setting is a practical and cost-effective setting for implementing dietary interventions to address non-communicable diseases, individuals in lower SES areas often exhibit suboptimal engagement with available interventions and are more prone to attrition. This systematic review aims to (1) assess community dietary interventions' effectiveness in recruiting and retaining individuals from low socioeconomic groups and (2) identify recurring characteristics associated with interventions showing optimal recruitment and retention.

Methods: A systematic search of Scopus, Medline, PsycArticles, Web of Science, Embase, and PsycINFO, yielded 114 records pertaining to 103 unique interventions published before 12/12/22. The full protocol and search strategy are registered on PROSPERO (ID: CRD42022376484). After deduplication and full-text screening, data on intervention characteristics, uptake and adherence rates, population information, and barriers/facilitators to engagement were double-extracted. Records were coded using the behaviour change taxonomy (v1), the BCIO mode of delivery ontology, and the setting ontology.

Results: Across the obtained studies, the mean intervention uptake rate in individuals from lower socioeconomic groups was 80.04% (SD: 45.96) and the mean adherence/retention rate was 71.98% (SD: 20.34). This indicates that both uptake and retention are suboptimal in relation to the rates required for adequate statistical power and validity. A narrative synthesis approach was implemented to explore and describe themes associated with optimal uptake and retention. This narrative synthesis is still ongoing and is expected to be complete by January 2024.

Conclusions and Implications: Anticipated findings will identify characteristics of interventions with optimal uptake and adherence/retention, offering insights into how best to optimise future interventions for individuals from low socioeconomic groups.

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What happens to people who join a community weight management programme? Long-term outcomes up to seven years after first joining

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Background: Community weight management programmes, such as Slimming World, provide open-ended support for people seeking weight management. Longer-term outcomes of people receiving support from such programmes in self-funded settings is understudied. This study evaluates the most recent weight outcomes of adults who first joined Slimming World in 2016 and were also accessing the service two to seven years later.

Methods: This secondary analysis included adults who joined Slimming World during 2016. Most recent electronic weight data for members who attended at least two years after joining were collated using last observation carried forward.

Results: Members who had at least one weight recorded between 2018 and 2023 (100,560 adults, 9.2% of people who joined in 2016) were included. Mean age and BMI at baseline were 49.4 (13.8) years and 33.9 (6.83) kg/m2 and 8.5% were male. 93.7% were matched to an IMD decile with 24.2% (n=22,790) in the lowest three and 35.5% (n=33,345) in the highest three deciles.
Mean change in weight and BMI was -11.2 (7.9)% and -3.9 (3.2) kg/m2 respectively.
Changes in weight by year of last reported weight were as follows; in 2018: -10.9 (7.5)% (n=50,332), 2019: -11.2 (7.9)% (n=20,731), 2020: -11.0 (8.3)% (n=14,407), 2021: -11.5 (8.9)% (n=5,343), 2022: -12.0 (8.4)% (n=3,299) and 2023: -13.6 (8.6)% (n=6,448). Year of last reported weight positively correlated with joining age ($r=0.19$, $p<0.001$) whilst correlations with joining BMI and IMD were not meaningful (both $r<0.001$)

Conclusions and Implications: This evaluation shows successful, long-term weight outcomes up to seven years, in adults from a range of socioeconomic backgrounds who received weight management support from Slimming World. This analysis highlights the importance of open-ended support as a key factor in successful obesity management.

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Keep it brief and make a plan? Investigating whether explanation length and implementation intentions influence adherence to weight management strategies.

Khaleda Ahmadyar[1], Dr Joanna Szypula[1], Dr Angeliki Bogosian[1], Dr Katy Tapper[1]
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Background: Adherence to weight management strategies can be poor, weakening intervention efficacy. Adherence may be undermined where lengthy strategy explanations limit engagement and understanding. By contrast, implementation intentions have been shown to promote adherence across a range of health behaviours. This study therefore investigated the impact of explanation length and implementation intentions on adherence to brief weight management strategies.

Methods: Participants (n = 200) were recruited from the database of a commercial digital weight loss service provider. Eligibility criteria included a BMI above 25 and interest in losing weight. Participants were randomly assigned to receive information about one of four weight management strategies on a smartphone application. They received either a brief or detailed version of the information and were asked to either plan their use of the strategy with implementation intentions or were given tips on strategy use. Participants received daily prompts over a 2-week period to report whether they used their assigned strategy. Proposed moderators (planning skills and need for cognition) were measured at baseline. Data were analysed using a series of regression models.

Results: Contrary to predictions, neither explanation length (b=-5.99, 95% CI [-21.08, 9.10], p=.14) nor implementation intentions (b=-.50, 95% CI [-7.63, 6.63], p=.89) had a main effect on strategy adherence. However, as predicted, planning skills moderated the effect of implementation intentions (b=-1.21, 95% CI [-2.34, -0.07], p=.04); individuals with poorer planning skills reported greater adherence when forming implementation intentions compared to receiving tips. The reverse effect was observed among participants with greater planning skills.

Conclusions and Implications: Among this group of participants, there was no evidence that explanation length affected adherence. However, as predicted, implementation intentions helped increase adherence among poor planners. This insight could help healthcare providers more effectively personalise behaviour change interventions according to individual characteristics.

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Developing a Blueprint for Halving Obesity in the UK: Cocreation of a policy toolkit.

Dr Kate Tudor[1], **Anish Chacko[1]**, Hugo Harper[1], Dr Katherine Parkin[1]
[1]Nesta

Background: There is evidence that there are many interventions that are effective for obesity, with varying levels of impact. It is currently unclear to civil servants working on obesity policy which interventions are most effective and cost effective. This lack of clarity runs the risk of the government implementing the ‘lightest touch’, yet least effective interventions (e.g. mass media campaign), while obesity levels continue to rise.

Aim: To develop an online tool for policymakers that quantitatively estimates the relative impact of interventions for obesity to inform evidence-based policymaking.

Methods: We have used innovative methods to develop the online tool. First, we conducted rapid umbrella reviews to identify the impact of each potential intervention on obesity related outcomes. Next we modelled these effects to estimate effects on the outcome of greatest interest to policy makers: reduction in UK obesity prevalence over 5 years. We convened a panel of influential academic experts to inform this methodology and conducted workshops with the panel throughout the process. We also convened a panel of civil servants working on obesity policy across local and central government to participate in user research and testing of the online tool. Finally we conducted an academic consensus building exercise, asking a wider group of academic experts to quality assure our estimates.

Results: We will present findings from both our user research with civil servants working on obesity policy across central government, as well as findings from our academic consensus building study.

Conclusions and implications: The tool will have significant implications for evidence based policy making, and if utilised could impact obesity prevalence in the UK.

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B.4 OLDER ADULTS

(Oral Presentations)

Strength and Tai-chi Exercise Snacking in Older Adults: a 12-week randomised controlled trial.

Dr Ian Ju Liang, Dr Oliver Perkin, Dr Sean Williams, Dr Polly McGuigan, Prof Dylan Thompson, **Dr Max Western**[1]
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Background: Preventing frailty in older age is crucial for maintaining independence, preventing falls, sustaining quality of life, and reducing the economic strain on health and social care. Currently, only 20% of adults aged 65 years or more meet the recommended muscle strength and balance guidelines to maintain physical function, with common participation barriers being low-self efficacy for exercise and dislike of leisure settings, lack of time, and fear of pain or injury. Having established feasibility and acceptability of home-based strength and tai-chi 'exercise snacking' as easy access and engaging exercise solution for older adults using qualitative and pilot trials, this research aimed to explore the efficacy of this novel approach.

Methods: A 12-week randomised controlled trial was used to explore the efficacy of exercise snacking on improving physical function. Pre-frail older adults (n=90) were randomised to undertake either 12-weeks of progressive daily exercise snacks, consisting of 5-minutes of strength and 5-minutes of tai-chi exercises, or a waitlist control. Participants physical function was assessed using the strength and balance components of the Short Physical Performance Battery (SPPB), single leg standing balance, and 60s sit-to-stand test remotely via videoconferencing at 0-, 4-, 8-, and 12-weeks. Data were analysed using linear mixed models.

Results: Intervention participants improved their strength and balance measured by the SPPB with an estimated mean difference of 1.73[95%CI 1.31-2.16]; p<0.0001) at week 4; 1.36[95%CI 0.95-1.77]; p<0.0001 at week 8; and 1.42[95%CI 1.00-1.85]; p<0.0001 week 12 compared to control group. The 60s sit-to-stand and left leg standing balance improved significantly more in the intervention group compared to the control group at every time-point.

Conclusions and implications: A 12-week, home-based, 10-minutes per-day, progressive exercise snacking programme can lead to clinically meaningful improvements in physical function, presenting a low-cost, scalable, way to increase strength and balance exercise participation amongst pre-frail older adults.

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Non-metabolic demands of different physical activity types and associations with functional independence in older adults

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[1]University of Aberdeen, [2]University of Glasgow, [3]University of Stirling

Background: Physical activity types vary in metabolic demand (intensity), but also non-metabolic physical demand (balance, co-ordination, flexibility), cognitive demand (attention, memory, decision-making), and social demand (social interaction). Activity types with different demands may have different effects on health outcomes. The present study investigated whether participation in activity types with different demand profiles is associated with differences in outcomes related to functional independence in older age.

Methods: Data on participation in physical activity, functioning (SF-12 physical and mental functioning, grip strength, functional limitations) and key covariates were obtained from n=12,866 older adults (>60 years; mean age = 70; 54% female) from wave 2 of the Understanding Society cohort. Physical activities were coded for metabolic (intensity) and non-metabolic (balance, co-ordination, flexibility, cognitive and social) demands. One-way ANOVA/Kruskal-Wallis tests were used to compare functioning between groups engaging in activities with different demand profiles and regression was used to predict functioning from non-metabolic activity demands after controlling for activity intensity and other covariates.

Results: Groups participating in activities with different non-metabolic demands differed significantly in physical functioning ($F(3, 10559) = 676.137$, $p = <.001$, $\eta2= 0.16$), mental functioning ($F(3, 10545) = 129.277$, $p = <.001$, $\eta2= 0.04$), grip strength ($F(3, 4717) = 127.459$, $p = <.001$, $\eta2=0.07$) and functional limitations ($H2(3) = 1615.734$; $p = <.001$). In all cases, groups engaging in activities with higher non-metabolic demands had better functioning / fewer limitations. Non-metabolic demands contributed an additional 1-3% variance ($p<.01$) to the prediction of functional outcomes after controlling for activity intensity, age, gender and illness/disability.

Conclusions and Implications: Older adults who engage in physical activity types with higher levels of non-metabolic demand (i.e. with balance, co-ordination, speed, flexibility, cognitive and social demands) demonstrate better functioning. High demand activity types may be more useful in health interventions than metabolically equivalent but lower demand types.

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Using a systems perspective to understand the impact life transitions in mid-to-older age have on physical activity and social connectedness: considerations for intervention development.

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Background: Physical activity (PA) and social connectedness (SC) in mid-to-later life are key to healthy ageing and interventions that increase both are a priority. Life transitions such as retirement, potentially serve as crucial points for interventions. We used a systems perspective to understand how life transitions interact with other factors in the system (e.g., individual experiences, and wider environmental and contextual influences) to inform interventions to increase both PA and SC.

Aim: To investigate the experiences and priorities concerning PA and SC in adults aged 55-75 years who underwent recent life transitions to identify potential levers for intervention.

Methods: We conducted semi-structured interviews with 26 men and women who had been through a life transition (retirement, bereavement, becoming a carer and moving to a new area) in the last two-to-five years. Interviews were analysed using a thematic framework approach informed by relevant theory.

Results: Experiences of PA and SC following life transitions were mixed. In some cases, life transitions disrupted PA and SC whereas other transitions provided opportunities to increase PA and SC. Transitions often occurred alongside one another and within a wider array of contextual factors and individual circumstances. We identified four key interdependent factors shaping experiences of PA and SC: 1) Changing social roles and interactions; 2) Ability to prepare and community support received; 3) Shifting identities; 4) Prioritisation, accessibility, and use of local spaces.

Conclusions and implications: Our study highlights the complex impact of life transitions on PA and SC. Our findings show intrapersonal, interpersonal, community and environmental factors all play a role to determine how PA and SC are impacted. To enhance interventions for promoting PA and SC in mid-to-older age adults going through a life transition, a systems-oriented approach is recommended.

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Sit Less Move More: a feasibility study of an intervention to support older adults to be more active, improve strength and balance and reduce their sedentary time

Dr Victoria Palmer[1], Dr Claire Fitzsimons[2], Dr David Blane[1], Dr David Loudon[3], Douglas Maxwell[3], Prof Nanette Mutrie[2], Prof Sally Wyke[1], Prof Cindy Gray[1]
[1]University of Glasgow, Glasgow, Scotland, [2]University of Edinburgh, Edinburgh, Scotland, [3]PAL Technologies Ltd, Glasgow, Scotland

Background: Being sedentary is associated with poorer physical and mental health in older adults, while physical activity (PA) is associated with improved disease risk and physical functioning. We aimed to test the feasibility of the Sit Less Move More (SLMM) intervention: a 10-week, facilitator-led intervention to support older adults to be more active, reduce their sedentary behaviour (SB) and build strength and balance.

Methods: A mixed-methods feasibility trial was conducted with community-dwelling older adults (N=60) randomly allocated to receive SLMM (intervention group, N=31) or to a comparison group (N=29). Outcomes examined included feasibility (recruitment, retention, telephone delivery), acceptability (semi-structured interviews (N=15)) and potential effectiveness (objectively-measured PA and SB, and self-reported PA, SB, and strength and balance exercises).

Results: The recruitment target (N=60) was met: 82% (N=49) were women (mean age 69±5.5), and 87% (N=25) of the intervention group completed the SLMM programme. Participants found personalised goal setting and feedback from their SLMM facilitator highly motivational. Objectively measured daily steps increased more in the intervention group than in the comparison group (1810±2840 vs. 440±2850 p=0.02). Self-reported walking MET mins/week increased significantly in the intervention group (2144±1628 vs. 1241±1170 p=0.002, between groups p=0.05). The intervention group increased sit-to-stand transitions more than the comparison group (10.5±25.3 vs. 2.3±8.6 p=0.11). No significant between-group differences in total sitting time were observed; however, self-reported sitting time (mins/day) reduced significantly in the intervention group (542±189 vs. 624±173 p=0.03). Number of days completing strength exercises increased in both groups (3.4 ± 2.8 p=0.004 vs. 2.7 ± 3.2 between groups p=0.27).

Conclusions and implications: Sit Less Move More is a feasible and acceptable way of engaging older adults in making positive changes to their physical activity and sedentary behaviour. A larger scale evaluation is needed to find out if the results can be replicated more widely.

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Experiences of participation in a peer-volunteer led active ageing programme for older adults at risk of lower limb mobility disability: The Active, Connected, Engaged [ACE] study.

Daniel Boatwright[1], Prof Afroditi Stathi[1], Prof Colin Greaves[1], Dr Janet Withall[1], Prof Diane Crone[2], Dr Helen Hawley-Hague[3], Dr Zsofia Szekeres[2], Dr Katie Chatwin[1], Amy Davies[3]
[1]University of Birmingham, [2]Cardiff Metropolitan University, [3]University of Manchester,

Background: Whilst life expectancy continues to increase, for many people these additional years are spent in poor health. The Active, Connected, Engaged (ACE) study is a NIHR-funded multi-site, randomised controlled trial of a peer volunteer led active ageing programme that pairs participants with a peer volunteer for six months. The volunteer supports the participant in engaging in activities in their local community. This study aims to explore the experiences of participants in the ACE programme and identify factors associated with engagement and impact of the programme.

Method: As part of a mixed methods process evaluation, we conducted 12 semi-structured interviews with five male and seven female ACE participants aged between 68 and 90 (Mean age 79). The interviews were conducted after completion of the pairing, were audio recorded, transcribed verbatim and analysed using framework analysis.

Results: Analysis identified three main themes: 1. Barriers to Physical Activity including ways that the programme supported participants to overcome barriers; 2. Participant-Volunteer Relationship, highlighting positive interactions and also examples of interactions that although not positive still facilitated lifestyle changes attributed to the ACE programme; 3. Impact of ACE, highlighting the reported improvements in mobility and confidence which enabled participants to achieve things they thought they were not capable of.

Conclusion: The findings provide an insight into how ACE participants in a range of contexts view their engagement with the programme, the peer-volunteer relationship and what the impact of ACE was in terms of changes in their daily lifestyle, their mobility, and their psychosocial health. This will inform future refinement of the intervention and implementation subject to demonstration of effectiveness from other studies within the process evaluation.

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B.5 MENTAL HEALTH, DIGITAL AND PRIMARY CARE

(Oral & 5 in 5 Presentations)

Presentations identified with ❖ at the beginning of the title are a 5 slides in 5 minutes presentation

Challenging but acceptable: process evaluation of a pilot study of a ketogenic diet for bipolar disorder

Dr Benjamin Rigby[1], Prof Harry Campbell[2], Prof Daniel Smith[3], Dr Iain Campbell[3], Dr Nicole Needham[3], Helen Grossi[4], Ivana Kamenska[2], Prof Emma McIntosh[5], Dr Pankaj Bahuguna[5], Dr Ben Meadowcroft[6], Dr Frances Creasy[6], Maja Mitchell-Girgorjeva[7], Prof John Norrie[2], Dr Gerard Thompson[3], Melissa Gibbs[3], Dr Aisla McLellan[8], Cheryl Fisher[4], Dr Tessa Moses[9], Dr Karl Burgess[9], Dr Rachel Brown[6], Dr Michael Thrippleton[3], Prof Sharon Simpson[10]
[1]Population Health Sciences Institute, Newcastle University, Newcastle-upon-Tyne, UK, [2]Usher Institute, University of Edinburgh, UK, [3]Centre for Clinical Brain Sciences, University of Edinburgh, Edinburgh, UK, [4]Department of Nutrition and Dietetics, Royal Hospital for Children and Young People, Ediburgh, UK, [5]Health Economics and Health Technology Assessment, University of Glasgow, Glasgow, UK, [6]Psychiatry, NHS Lothian, Ediburgh, UK, [7]Bipolar Scotland, Paisley, UK, [8]Department of Paediatric Neurology, Royal Hospital for Children and Young People, Edinburgh, UK, [9]Centre for Engineering Biology, University of Edinburgh, Edinburgh, UK, [10]MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

Background: Diagnoses of bipolar disorder are increasing. However, the underlying pathophysiology of this serious mental illness remains poorly understood, and current treatment and prevention strategies are suboptimal; effective new interventions need to be identified. Recent evidence from case reports suggests a ketogenic diet (i.e. high-fat, low-carbohydrate) shows promise, but no clinical trials have yet been conducted. This paper presents findings from the process evaluation of a world-leading pilot study of a ketogenic diet in bipolar disorder, which aimed to explore the feasibility and acceptability of the intervention and study design.

Methods: A mixed-methods design was adopted. Nineteen semi-structured telephone interviews were conducted with study participants 1-2 months post-follow-up (n=15) and health professionals implementing the intervention (n=4). Data were analysed thematically. A descriptive statistical analysis of dietitians' behavioural fidelity checklists was also completed.

Results: Four key motives for participation were identified: hope; alternative to pharmaceuticals; weight loss; and supporting bipolar research. The ketogenic diet was considered a challenge for this patient group, but in most cases an acceptable and worthwhile undertaking (positive impacts perceived). Various contextual factors exacerbated barriers to adherence (e.g. financial costs; technological issues), while intensive tailored support was essential for adherence. Setting and evaluation of goals, social support and self-monitoring were key facilitative behavioural strategies. Overall, statistical analyses indicated moderate-to-good fidelity to the behaviour change components of the study (% of total patient-dietitian meetings). Health professionals cited challenges, but also numerous positive experiences (e.g. the benefit of a cohesive intervention team, and the utility of fidelity checklists). Both participant groups suggested numerous future refinements.

Conclusions and implications: A ketogenic diet is a feasible and acceptable intervention for bipolar disorder. Future trials would benefit from increased healthcare system capacity, better-defined entry and exit routes, additional interpersonal support, and greater understanding of how societal factors impact participation among high-risk groups.

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Risk and protective factors which distinguish those who have thoughts of self-harm or suicide from those who act on them: A systematic review in young people.

Dr Marianne Etherson[1], Prof Dorothee Auer[2], Dr Sieun Lee[2], Isobel Steward[2], Nitish Jawahar[2], Dr Joey Ward, Krystyna Loney[1], Dr Heather McClelland[1], Dr Aaron Kandola[3], Dr Josimar Mendes[4], Prof Chris Hollis[2], Prof Ellen Townsend[2], Prof Rory O'Connor[1]
[1]University of Glasgow, Glasgow, United Kingdom, [2]University of Nottingham, Nottingham, United Kingdom, [3]University College London, London, United Kingdom, [4]University of Oxford, Oxford, United Kingdom

Self-harm and suicidal thoughts and behaviours are significant global public health concerns among young people. Although most young people with thoughts of self-harm or suicide do not act on their thoughts, it is important to identify factors that distinguish thoughts of self-harm and suicide from behaviours. No previous reviews examining the "ideation-to-action" framework have focused on young people or have synthesised factors distinguishing self-harm behaviours from self-harm thoughts. Our review addresses these gaps in the literature. We systematically searched: CINAHL, Embase, Medline, PsycINFO, Psychology and Behavioural Sciences Collection, and Web of Science Core Collection for articles published between 2011-2022. Eighty-eight studies met inclusion criteria, with 82 articles examining factors that distinguished those with suicidal behaviours from those with thoughts of suicide and six articles examining factors that distinguished those who self-harm from those with thoughts of self-harm. While inconclusive, key risk factors that distinguished suicidal behaviours from suicidal ideation included non-suicidal self-injury, physical, emotional, or sexual abuse, violence, and family factors, whereas protective factors included parental factors (e.g., parental connectedness) and greater academic achievement. Key risk factors that distinguished between self-harm behaviour and thoughts of self-harm included being female, exposure to self-harm/suicide, and impulsivity. No studies examined protective factors that distinguished between self-harm thoughts and self-harm behaviours. Our review has important implications for intervention and prevention efforts as identifying key risk and protective factors which distinguish between self-harm/ suicidal thoughts and behaviours can improve risk assessment (for young people experiencing thoughts of self-harm and suicide) and enable more targeted interventions.

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Understanding young people and their parents' experiences of acne: informing the development of the Acne Care Online digital behaviour change intervention

Dr Rosie Essery[1], Dr Mary Steele[1], Rebekah Le Feuvre[1], Prof Nick Francis[1], Prof Paul Little[1], Prof Lucy Yardley[2], Prof Matthew Ridd[2], Prof Alison Layton[3], Prof Sinead Langan[4], Prof Andrew Thompson[5], Prof Mahendra Patel[6], Mr Adam Yates[7], Prof Tracey Sach[1], Sophie Dove, Kate Heneghan-Sykes[1], Irene Soulsby, Prof Miriam Santer[1], Dr Ingrid Muller[1]
[1]University of Southampton, [2]University of Bristol, [3]Harrogate and District NHS Foundation Trust, [4]London School of Hygiene and Tropical Medicine, [5]Cardiff and Vale University LHB, [6]University of Bradford, [7]Woodstock Bower Group Practice,

Background: Acne is highly prevalent amongst teenagers and young adults and often substantially impacts physical and/or mental health. Topical treatments are the recommended first line for most mild-moderate acne but young people's limited knowledge of treatment options, or adherence challenges, often hinder effective management. To optimise this group's treatment-seeking and adherence-related behaviours, it is vital to understand their experiences of managing acne. Voices of younger teenagers, those from diverse ethnic groups, and males are particularly important given their relative lack of representation in previous qualitative studies.

Methods: Purposive sampling was employed to recruit 24 young people with acne (including nine 13–15 year-olds;13 from Asian, Black or other ethnic groups; seven males), and eight parents (seven Mothers). Participants were recruited via social media, and semi-structured qualitative interviews were conducted via telephone . Interviews were audio-recorded, transcribed and analysed following thematic analysis guidelines. Applying a Person Based Approach to intervention development, the themes developed were used, alongside input from public contributors and other stakeholders, to inform 'Acne Care Online' digital behaviour change intervention content.

Results: Findings provided insights into acne-related beliefs that appeared influential in support- and treatment-seeking behaviours. Common misconceptions included equating evidence-based topical acne treatments with cosmetic skincare products. Furthermore, young people and parents expressed ambivalence about whether acne warranted consultation. Many expressed a sense of 'acne/body positivity', recognising that their skin's appearance did not determine their worth. Amongst younger participants, parents often led support-seeking behaviours.

Conclusions and Implications: These findings shaped key messages and features of Acne Care Online, including a searchable database of evidence-based treatments, and tools to encourage and support consultations. Insights gained also have important implications for optimising acne-related consultations. Feasibility and effectiveness trials, with nested process evaluation will evaluate whether, and by which mechanisms, Acne Care Online can improve outcomes amongst 13–25 year-olds.

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❖Exploring perceptions around the potential implementation of Artificial Intelligence within the English NHS Diabetic Eye Screening Programme: a qualitative analysis of survey responses

Dr Charlotte Wahlich[1], Dr Lakshmi Chandrasekaran[1], Dr Umar Chaudhry[1], Royce Shakespeare[1], Kathryn Willis[1], Prof Christopher Owen[1], Prof Alicja Rudnicka[1]
[1]St George's, University of London, United Kingdom

Background: The English NHS Diabetic Eye Screening Programme (DESP) generates over 10 million retinal images per year, which are graded for diabetic retinopathy. Previous research has shown that Artificial Intelligence (AI) systems can identify images with diabetic retinopathy as well as human graders, which could significantly reduce workload. However, such systems are not licensed for use in the English NHS DESP, and there is a need to gauge perceptions and attitudes of people living with diabetes (PLD) and health care practitioners (HCP) towards their introduction before implementation.

Methods: To examine perceptions of AI-assisted eye screening, two separate online surveys were co-developed through focus groups with PLD and HCP from one of the largest, most ethnically diverse DESP in North East London. Subsequent validation via interviews was carried out within three geographically dispersed DESP centres. Surveys were distributed to DESP centres, through relevant charities and the British Association of Retinal Screeners. While each survey consisted of predominantly Likert-scale questions with resulting quantitative data, the inclusion of a free-text box for an optional comment allowed for qualitative analysis of these data.

Results: As of 3rd October 2023, 24% of PLD (293/1205) and 37% of HCP (77/206) respondents had provided a comment. Using a thematic analysis approach, three researchers developed an initial coding framework from a subset of the data. All comments were double-coded with discrepancies discussed to ensure reliability. Themes arising from the data include; trust, impact on the workforce, patient-practitioner relationship, practicalities associated with AI implementation and inequalities.

Conclusions and implications: Qualitative findings have raised issues around potential AI implementation; therefore, it is imperative to understand the educational needs of people living with diabetes and health care professionals before AI is introduced into the DESP to ensure a smooth transitional process. Developing education-based programmes would help to address these concerns.

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❖Patients' Experiences of Digital Health Interventions for the Self-Management of Chronic Pain: A Systematic Review and Thematic Synthesis

Ashleigh Main[1], Haruno McCartney[1], Maryam Ibrar[1], Harleen Rai[1], Fiona Muirhead[2], Alexandra Mavroeidi[3], Roma Maguire[1]
[1]Department of Computer and Information Sciences, University of Strathclyde, Glasgow, UK, [2]Physical Activity for Health, School of Psychological Sciences and Health, University of Strathclyde, Glasgow, UK, [3]Department of Occupational Therapy and Human Nutrition and Dietetics, School of Health & Life Sciences, Glasgow Caledonian University, Glasgow, UK

Background: Chronic pain is a very prevalent condition, though few patients have access to evidence based multidisciplinary treatment. As such, digital interventions that offer self-management strategies have been gaining attention in recent years. Exploring patients' experiences with such interventions has the potential to advance our understanding of the way in which patients engage with digital tools for the management of chronic pain. This review aims to synthesise qualitative evidence on chronic pain patients' experiences with a digital health intervention for the management of their pain.

Methods: Medline Ovid, Embase, Cumulative Index for Nursing and Allied Health Professionals (CINAHL), PsychINFO and Scopus databases were searched for published studies. Inclusion criteria were patients aged 18 and over, chronic pain diagnosis, experience of participating in a digital intervention, and reporting qualitative data. The review followed the 3-step thematic synthesis methodology of Thomas and Harden (2008), and critical appraisal is being conducted using the Critical Appraisal Skills Programme (CASP) checklist tool. Extracted data was imported to NVIVO, and thematic synthesis is being used to derive analytical themes from the data.

Results: The full texts of 70 studies were screened, and 32 studies have been included in the review. Data extraction is currently taking place, and results will be complete by 31st December 2023. The findings will improve our understanding of what factors are vital for digital health intervention development, including the need for new interventions, perceived benefits and disadvantages, usability, and acceptability.

Conclusions and implications: This review will fill the gap in the literature by synthesising qualitative data on the experience of digital health interventions amongst patients with chronic pain. The findings from this review could play a crucial role in the development of future digital tools, as well as enhancing the adoption and continued use of tools for the management of chronic pain.

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❖Identifying research priorities for managing chronic conditions in primary care in Ireland; a James Lind Alliance priority setting partnership

Laura O'Connor[1], Maryrose Tarpey[2], PSP Steering Group[1], Prof Susan Smith[1,3], Prof Andrew Murphy[1]
[1]HRB Primary Care Clinical Trials Network, University of Galway, Ireland, [2]James Lind Alliance, Southampton, United Kingdom, [3]Trinity College Dublin, Ireland

Background: Chronic conditions are extremely common, with approximately 1 million people in Ireland currently managing at least one chronic symptom or disease. Combined with an aging population, this represents a large and growing burden on primary care services.
Research in this area is increasingly involving stakeholders beyond traditional researcher and clinician groups, but more could be done to ensure advances are made in the areas of greatest importance to those most affected, i.e. the patients themselves, their carers, and the healthcare professionals managing their care.

Methods: Using the James Lind Alliance priority setting partnership (PSP) methods, and with the support of an affiliated adviser, we have established a PSP to bring together patients, carers, and healthcare professionals and identify unanswered questions about the management of chronic diseases. Their methods includes large scale stakeholder participation in two surveys, one to gather initial input and one to rank the resulting longlist, as well as a focused final workshop to create the final top ten list through informed, impartially facilitated discussion.

Results: The initial survey collect potential research questions about the management of chronic diseases was shared from March to May 2023. 185 responses resulted in 350 individual statements, which were then sorted and checked against the literature, resulting in a list of 30 unanswered questions. The interim ranking survey was launched in November 2023 and the final workshop to generate the top 10 research priorities will take place in January 2024. The list of top 10 research priorities for managing chronic conditions in primary care in Ireland will be available immediately following the final workshop

Conclusions: Creating a top priorities list for research in managing chronic conditions in primary care will offer researchers a way to ensure that future projects reflect the needs of the stakeholders most affected.

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❖Public and GP perceptions of Faecal Immunochemical Testing in bowel screening: Insights to encourage informed participation in the Bowel Cancer Screening programme

Dr Lindsay MacDonald, Dr Claire Champ[1], Hope Walters[1], Dr Lyndsy Ambler[1]
[1]Cancer Research UK, London, United Kingdom

Background: Bowel cancer screening aims to detect cancer before symptoms are present. The primary test in the UK (Faecal Immunochemical Test -FIT) detects small amounts of blood in stool. Barriers exist to participation and there are inequalities in uptake. This research sought to identify facilitators to participating in bowel cancer screening for the public and understand GP's role in supporting informed participation.

Method: Online surveys were administered to GPs and the public in 2022/23. Data from UK GPs (May 23 N=1005, Aug 23 N=1002) were collected by a research agency, medeConnect, and from a nationally representative sample of the UK public (October 22 N=2075) by YouGov, a market research company.

Results: For the public (n=828, aged 50+), the most endorsed prompts for FIT screening completion were ‘A printed step-by-step guide of how to complete the FIT’ (35%), ‘Information about the importance of doing the test sent with the FIT’ (30%) and a reminder letter from their GP (19%). Respondents from a C2DE social grade were significantly less likely to endorse ‘information about the importance of doing the test sent with the FIT’ (25% vs 35% for ABC1).
72% of GPs agreed it’s part of their role to help people make an informed choice about participating in bowel screening but don’t routinely discuss this with eligible patients (59% occasionally or less often). 24% of surveyed GPs didn’t have access to information or tools to facilitate discussion with eligible patients and 27% that did have access reported rarely or never using them.

Conclusions and implications: The public may benefit from additional information and prompts to help them to participate in screening. GPs could be encouraged to have more opportunistic conversations with eligible patients on the importance of doing the FIT and how to do it, supported by health professional information and tools.

Thursday 14th March 2024

Parallel Session C

C.1 SYMPOSIUM: Health inequalities in post-industrial communities: From evidence to policy

Health inequalities in post-industrial communities: From evidence to policy

Convenors: Christopher Saville[1], Daniel Thomas[2]
[1]Bangor University, [2]Public Health Wales

Purpose: People in post-industrial communities have poorer health. Better understanding the behavioural contributions to this health inequality should be a public health priority.

Objective: A series of talks looking at a range of health behaviours in post-industrial communities, with a particular focus on coalfield communities in Wales.

Rationale: Health, and the behaviours which influence it, are shaped by the environment in which people live. One type of setting which is often linked to poorer health outcomes is post-industrial communities in high-income countries. Here, formerly reliable sources of work in heavy industry have largely disappeared, leaving economic challenges and a loss of identity. Such areas often have a distinctive character, where norms around health are influenced by both the legacy of industry and its decline. Attempts to influence health behaviours in these settings should take account of this socio-cultural context.

Summary: The proposed symposium will present three talks looking at health and behaviour in post-industrial settings, ranging from early evidence to policy-focused work. Daniel Thomas from Public Health Wales will present on Covid-19 infection rates in coalfield areas of Wales and Kentucky. John Parkinson from Bangor University will present work on norms of collectivism during the transition out of the Covid-19 pandemic in Wales. Chris Saville from Bangor University will present work looking at increased rates of anabolic steroid use in men in coalfield areas of Wales. Finally, Ashley Gould will talk about designing behavioural science informed interventions for these settings.

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Steroids and the pithead: A survey of steroid use in coalfield and non-coalfield areas of Wales

Christopher W N Saville[1], Lee Hogan[1], Leuan Cranswick[2], David Tod[3], Dean Acreman[4], Daniel Thomas[4],
[1]Bangor University, [2]Leeds Beckett University, [3]Lancaster University, [4]Public Health Wales

Background: Once limited to elite athletes, anabolic steroid use now includes a wide range of users, taking them for various image and performance-related purposes. Steroids use is associated with negative health outcomes and their growth is recognised as a public health problem. One group who may be at particular risk are men in former coalfield areas, where culturally valorised masculine roles are now unattainable, both in terms of access to economic opportunity and the loss of the hyper-masculine role of the coalminer. Steroid use may represent a possible compensatory mechanism.

Methods: An online survey was used to recruit 1427 male respondents, aged 18-49, living in Wales, quota-sampling for a sample that was representative of the male population in this age range, plus a small non-representative 'boost' sample in areas with history of coalmining. Survey data were linked to geographical data on the extent of historical coalmining in respondents' area of residence. Linear mixed effects models were fitted to the data, predicting reported steroid use using mining extent and several possible mediators and confounders, to assess the strength of the putative relationship and its candidate mechanisms.

Results: Mining extent was positively associated with steroid use (OR=2.03, 1.13-3.65) and this relationship was robust to adjustment for age, ethnicity, education, income, financial distress, conformity to masculine norms, body image, and subjective social status.

Conclusions and implications: Steroid use appears to be more common in coalfield areas of Wales, as predicted. However, this relationship was robust to adjustment for several proposed mechanisms, so the mechanisms for this are unclear. Further work is needed to inform interventions to reduce use and promote safer use.

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Covid and the coalfield: Impact of the COVID-19 pandemic on the coalfield communities of Wales and Kentucky

Matthew Rumble[1], Christopher W. N. Saville[2], Scott Lockard[3], April M. Young[4], **Daniel Rh. Thomas**[1],
[1]Public Health Wales, [2]Bangor University, [3]Kentucky River District Health Department

Background: During the COVID-19 pandemic, some of the areas in Wales most affected were in the former mining areas of South-East Wales. We undertook a study in Wales and Kentucky to examine whether coal mining communities had been disproportionally affected by the pandemic.

Methods: Using routinely available data, we calculated cumulative confirmed SARS-CoV-2, COVID-19 hospitalisation and mortality proportions for small areas in Wales and Kentucky. We compared median proportions inside and outside the coalfield and using generalised linear regression examined the risk of COVID-19 outcomes.

Results: Communities in Wales with a history of coal mining after 1960 had higher levels of long-term illness and income poverty. They also had higher proportions of confirmed SARS-CoV-2 infection, hospitalisation and death, which remained significant after taking into account levels of chronic illness, deprivation, and older residents. Kentucky's coal mining counties had higher proportions of confirmed cases and deaths. This finding remained after adjusting for population density, income deprivation, and proportion who were non-White and over age 65.

Conclusions and implications: The COVID-19 pandemic has not affected everyone equally. We provide evidence that people living in de-industrialised communities have been particularly affected. This disparity appears to be independent of other known factors. The reasons for this health disparity are likely complex, but should be addressed in preparing for future pandemics.

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Approaches to systematically understanding behavioural determinants, as a foundation for eliciting change – supporting smoking cessation as a case example

Ashley Gould[1]
[1]Public Health Wales

Background: To follow on from the presentations around health harming behaviour and the differential impacts on health from COVID-19, this talk will explore approaches to policy, service and communication to reduce health inequities – a 'now, what can be done about this' response to the earlier presentations of need and reality.

Methods: Behavioural science stands at the forefront of addressing public health challenges, and a nuanced comprehension of the factors influencing behaviours-in-context is essential for designing effective responses. This presentation will outline a step-wise approach for systematically identifying, categorizing, and prioritizing the key behavioural determinants, with a case example around smoking cessation. Drawing on empirical evidence and theoretical models, we will explore how individual, social, and environmental factors interplay to influence behaviour and provide a foundation for tailoring interventions, thereby enhancing their efficacy – in this case increasing the proportion of smokers choosing to quit with NHS support.

Results: In 2021, in Wales, 25.9% of current adult male smokers lived in the most disadvantaged neighbourhoods, just 8.6% lived in the least disadvantaged neighbourhoods. We will walk through the application of a behavioural science approach to supporting smoking cessation efforts, in a tailored way.

Conclusions: The talk will signpost to, and illustrate the use of, tools to support this approach for other health harming and health protective behaviours.

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Individualistic vs Collective attitudes in Wales: post-industrial and post-covid segmentation

John Parkinson[1], Aidan Bark-Connell[1], Robin Mann[2], Christopher W N Saville[1]
[1]School of Psychology and Sports Science, Bangor University, [2]School of History, Law, and Social Sciences, Bangor University

Background: Since devolution, Wales has continuously been under a Labour Government, in part due to the post-industrial legacy of unionism and a social democratic tradition. We explored how this socio-political landscape influenced attitudes and narratives around Covid in the transition period as society began to open up. We were interested in attitudes towards non-pharmaceutical interventions (NPIs), encompassing measures such as social distancing and self-isolation, including the degree to which individuals had adhered to these guidelines and regulations as a function of political philosophy and other related variables.
Methods: An online survey (August-September 2022) of 1,479 representative of the population of Wales (such as gender, age, language etc). Ordinal regressions and GLMs were used to assess the association between a measure of collectivist/individualist attitudes and reported protective behaviours (e.g. mask-wearing, avoiding crowded social settings, vaccination) in the sample. Qualitative interviews were subsequently conducted exploring experiences of the transition out of the pandemic, and thematically analysed.

Results: Relationships and themes were identified relating to the socio-political landscape. The rights and responsibilities of individuals were often framed in terms of actions for the common good. Where blame was assigned for deviation from NPI guidelines, often it was framed in terms of individual characteristics such as ignorance, inconsideration, and failure to do ‘easy’ things for the collective good. Where scepticism was evident, resistance to NPIs and/ or vaccination were often based on personal ‘good health’ as well as the right to choose. Certain thematic ‘tribes’ emerged providing insight into different segments of the Welsh population.

Conclusions: The Government’s risk register acknowledges the likelihood of another future world pandemic, so it is important to understand the potential for population segmentation in designing effective communication and NPIs in supporting protective behaviours in the population.

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C.2 INTERVENTIONS

(5 in 5 Presentations)

Presentations identified with ❖ at the beginning of the title are a 5 slides in 5 minutes presentation

❖Tailored Intervention Strategies to Improve Influenza Vaccination Knowledge, Attitude and Behavior among Chinese University Students in the UK: A Three-Step Approach

Lan Li[1], Prof Patty Kostkova[1]
[1]University College London, London, United Kingdom

Background: Chinese university students in the UK face elevated influenza risk due to close living and social interactions, yet their vaccination rates are low. This research presents a three-step process that aims to address the problem systematically. First, a cross-sectional survey identifying key barriers and enablers, followed by a qualitative study using a co-creation approach to design a theory-based social media intervention, and an evaluation study was conducted to examine its effectiveness.

Methods: Phase I involved a cross-sectional survey administered online utilizing the Theoretical Domains Framework. In Phase II, three focus groups were conducted to gather insights for co-designing a social media intervention. Phase III employed a quasi-experimental design with pre- and post-settings, randomly assigning participants to intervention and control groups.

Results: In Phase I, the survey involved 404 students with findings indicating that the main barrier to influenza vaccination is a lack of knowledge on how to access it. WeChat emerged as the predominant social media platform with delivery potential. During phase II, the focus group identified three primary intervention functions: educational articles, reminders, and auto-reply. The content and artwork have been decided by the focus group. Among the 596 participants recruited in the evaluation study in phase III, the intervention group (303) demonstrated significant increases in knowledge, attitude, and intended behaviour scores compared to the control group (293). Post-intervention, the actual vaccination rate slightly rose in the intervention group (20.8%) versus the control group (18.7%). Path analysis indicated the intervention's direct impact on knowledge, influencing attitudes, and influencing intended behaviour. High participant satisfaction and positive reviews supported intervention efficacy.

Conclusion: The three-step process implemented in this study has proven to be effective. This study provides important insights for public health initiatives targeting similar populations. It emphasizes the necessity of tailored, evidence-based, and user-centred interventions for addressing vaccine hesitancy.

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❖A feasibility study of the CRISP intervention; a cardiovascular risk reduction intervention in patients with an abdominal aortic aneurysm

Dr Tom Withers[1], Prof Colin Greaves[1], Prof Matt Bown[2], Faye Ashton[2], Aimee Scott[1], Prof Athanasios Saratzis[2]
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Background: The UK-wide National Abdominal Aortic Aneurysm Screening Programme (NAAASP) identifies men with Abdominal Aortic Aneurysms (AAA), monitors them for AAA growth, providing operations if needed. Although men with AAA are at elevated risk of cardiovascular events, this is currently not addressed. The CRISP intervention was developed to reduce cardiovascular risk and be delivered via the screening programme. This research aimed to feasibility-test the CRISP intervention.

Methods: The CRISP intervention consists of personalised risk assessment, a nurse consultation where patients choose which risk factors to focus on, workbooks to support self-management of selected risk factors and follow-up support. Participants were followed up for six months; fidelity of intervention delivery was assessed by applying a checklist to audio-recorded consultations, with delivery of intended intervention components scored on a 0-5 scale, with a score of 3 representing adequate delivery. A subgroup of healthcare professionals and patients were interviewed.

Results: The 40 men who took part selected a median of two risk factors to work on. Physical activity (n=17) was the most popular followed by diet (n=11), blood pressure (n=10), stress (n=6), alcohol (n=5), low mood (n=5) and smoking (n=4). Two participants were referred to mental health services, three declined a referral to smoking or drug and alcohol support services. The fidelity of intervention-delivery was low with item-scores ranging from 1.5 (SD 0.6) out of 5 for engaging the participant to 0 for exploring the importance for selected lifestyle behaviours at follow-up appointments. Nevertheless, the intervention was liked and viewed as beneficial by patients and healthcare professionals. Ideas for improving the intervention-training were generated by both the fidelity scoring and the interview data.

Conclusions and implications: The CRISP intervention can be delivered in routine AAA surveillance but requires further adaptation to optimise delivery fidelity and further feasibility testing before full-scale evaluation.

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❖Online exercise intervention for people with a bowel stoma

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Background: This study aimed to test the feasibility of an online exercise intervention for people with a bowel stoma to manage parastomal bulging.

Methods: The intervention included booklet, videos, and 12 x 60 minutes online sessions with an exercise specialist. Intervention fidelity, adherence and acceptability were tested in two feasibility studies: i) a single-arm trial (n = 17 patients), ii) randomised controlled trial RCT (n = 19 patients). Quantitative measures of fidelity were the number of exercise sessions delivered by the instructor and duration. Two methods were used to assess if the intervention was delivered in line with self-determination theory: i) Observation of online exercise sessions scored by two researchers using the Interpersonal Support in Physical Activity Observational Tool (ISPAOT), ii) completion by participants of the Basic Psychological Needs in Exercise Scale (BPNES). Intervention adherence was defined as the completion rate of the prescribed exercises by participants. Intervention acceptability was investigated by free-text comments in participant diaries and semi-structured interviews.

Results: Fidelity: participants received on average 8 sessions, lasting on average 48 min. Two researchers gave a maximum score of 21 for three recorded online exercise sessions using the ISPAOT. Data for the BPNES (range 1–5) found that for the competence subscale mean scores increased from 2.98 (SD: 1.02) to 3.26 (SD: 0.88) and for the autonomy subscale mean scores from 2.95 (SD: 1.03) to 3.44 (SD: 1.17) from baseline to follow-up.

Adherence: Ninety-two percent of the exercises prescribed were completed (defined as >75% of the exercise prescription given).

Acceptability: Themes from qualitative interviews related to the benefits of exercise, including improved and mental health. Identified barriers to the exercise intervention included time constraints and health issues.

Conclusions: The online intervention was feasible to deliver, acceptable to participants, and potentially beneficial.

Implications: An effectiveness RCT is the next step.

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❖Exploring critical intervention features and trial processes in the evaluation of sensory integration therapy for autistic children

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Background: We evaluated the clinical and cost-effectiveness of manualised Sensory Integration Therapy (SIT) for autistic children with sensory processing difficulties in a two-arm randomised controlled trial. Trial processes and contextual factors which may have affected intervention outcomes were explored in a process evaluation and implications for evaluation of individual-level, tailored interventions in similar populations are considered.

Methods: The process evaluation was conducted in line with Medical Research Council guidance. Recruitment, demographics, retention, adherence, and adverse effects are reported using descriptive statistics. Fidelity of intervention delivery is reported according to the intervention scoring manual. Qualitative interviews with therapists and carers were undertaken to explore acceptability of the intervention and trial processes. Qualitative interviews with carers explored potential contamination.

Results: Recruitment, reach and retention met expected thresholds. 138 children and carers were recruited (92% of those screened and 53.5% of those who expressed an interest) with 77.5% retained at 6 months and 69.9% at 12 months post-randomisation. The intervention was delivered with structural and process fidelity and most participants (78.3%) met the threshold for adherence. However, there was considerable individual variability in receipt of sessions. Carers and therapists reported that trial processes were generally acceptable though challenges such as appointment times, travel and Covid restrictions were frequent barriers to intervention receipt. No adverse effects were reported.

Conclusions: Rigorous evaluations of interventions for autistic children are important and previous studies have been limited by small sample sizes and short-term follow-up. The process evaluation highlighted contextual factors which may have impacted the effectiveness of this intervention as delivered, including variability in proximal outcomes i.e., the target of this intervention, which was individualised to the child. It is also crucial to consider the role of parents or other caregivers in facilitating access to these interventions and how this may impact effectiveness.

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❖Acceptability of at-home urine self-testing for bladder health problems – Preliminary qualitative results from the YORKSURe feasibility study

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Background: Haematuria, a potential bladder cancer biomarker, can be detected using urine dipsticks. YORKSURe assessed the feasibility of offering at-home dipstick testing kits. Potential participants were mailed the kit. Responders had to complete the test 2-6 times over six days. Samples had to be ‘midstream’ and not from the first urination of the day. To report the results, participants could either scan the strip using an app or manually match the test strip colours to a chart provided and report the results by phone. We qualitatively explored the acceptability of the test and self-reporting process.

Methods: We carried out semi-structured interviews, informed by the Theoretical Framework of Acceptability. YORKSURe responders and non-responders were purposively sampled by participation, test result and socioeconomic deprivation. We analysed verbatim transcripts using the Framework method. The topic guide and analysis were reviewed by two men with lived bladder cancer experience.

Results: We interviewed 23 responders and 6 non-responders.

Test kit
Participants were positive about the kit, as urine sampling was familiar. Most responders found the test straightforward. Some non-responders viewed collecting urine ‘midstream’ as messy and the repeat tests burdensome. Some responders had trouble finding the right size receptacle to collect urine. One non-responder recommended using pictures to simplify the instructions.

Reporting
Many responders found self-reporting convenient, as nothing needed to be returned. Most responders found the app and phone reporting simple, but some reported technical difficulties. Some responders had concerns about or experienced difficulty matching the test strip to the colour chart when reporting by phone. Some participants lacked the device or digital literacy for the app.

Conclusions and implications: On balance, most people found the kit and self-reporting acceptable. Reducing technical problems and simplifying instructions could improve acceptability. These results will inform the feasibility of a randomised controlled trial to evaluate the test.

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❖The efficacy of communication-based interventions on promotion/retention of blood donation: a systematic review

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Background: The global, chronic blood-product shortage desperately needs addressing. Despite evidence regarding the effects of incentives on promoting blood donation (Chell et al., 2018), different interventions (Godin et al., 2012) and modes of communication, no systematic review we found compares communication-based interventions. Identifying effective mode(s) of promotion/retention may improve donor recruitment efficiency, better resource allocation and inform intervention designs. We therefore ask, "What are the most effective interaction interventions for promoting blood donation?" and "Are these different between encouraging first time and returning blood donors?"

Methods: We searched for papers investigating interactive interventions on promoting and retaining blood donors. “Interactive” defined as interaction between two or more parties (e.g. phone calls or in-person conversations). Excluded papers were systematic reviews, literature reviews, comment/opinion papers, non-English or non-peer reviewed papers. The search was conducted on Medline, CENTRAL, Embase and PsychINFO using predetermined keywords. Quality was assessed using the Mixed Methods Appraisal Tool (MMAT). Outcomes measured included: intention to donate blood, completed blood donation and frequency of return. A narrative synthesis of included papers was done.

Results: After screening 1,451 studies, 30 studies were included. Common interventions included phone calls, in-person conversations and online groups. In-person interventions included workshops and motivational interviews. Early results indicate that face-to-face interactions are preferable.

Conclusions and implications: The composition and position of communication-based interventions are fundamental to their design and evaluating their efficacy (Joyce et al., 2023), yet studies rarely provide those details. It is therefore difficult to compare and identify effective intervention components. The implication is twofold. First, reporting communication-based interventions should be more detailed. Second, future studies could explore effective donation-promoting interventions by analysing 'real life' interactions promoting blood donation. The present systematic review focuses attention on effective communication strategies for donor recruitment and retention.

Keywords: blood donation, communication, intervention, blood donor retention, systematic review

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❖Experiences of lung cancer diagnosis and acceptability of community-based blood tests to monitor for recurrence: a qualitative study

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Background: Lung cancer is the leading cause of cancer death. Whilst lung screening (also known as Targeted Lung Health Checks, TLHC) allows for earlier detection, around 40% of non-small cell lung cancer surgery patients will experience recurrence. The COMPASS study aims to determine the feasibility of community-based blood test monitoring after lung cancer surgery to predict recurrence. Implementation of lung cancer screening for ever smokers aged 55-74 years, will increase the number of earlier stage lung cancers. However, there is little UK research on the experiences of lung cancer diagnosis and treatment via lung screening. Similarly, it is important to explore acceptability of new potential follow-up methods within feasibility studies. The COMPASS interview sub-study aims to explore a) the experiences of lung cancer in those diagnosed via TLHC or other pathways and b) the acceptability of blood test monitoring for lung cancer recurrence. Methods: COMPASS participants are invited to take part in individual semi-structured telephone interviews from 6-weeks after lung cancer surgery. Those who join the sub-study are offered a follow-up telephone interview approximately 12 months after their surgery. Audio-recorded interview transcriptions will be analysed using reflexive thematic analysis. Results: To date, thirteen participants (9 males; age range 63-81 years at time of joining main COMPASS study; 2 never smokers) have taken part in initial interviews. The seven participants who had screen-detected lung cancer held positive views about TLHC. For others, lung cancer was detected due to investigations for other health reasons so came as a particular surprise. Participants viewed community-based blood monitoring for recurrence as convenient and something that would be reassuring as part of a follow-up pathway. Conclusions and implications: Recruitment for the interview study will finish late summer 2024 as the main COMPASS study ends in May. Findings will inform future research related to community-based blood testing.

C.3 ALCOHOL AND TOBACCO

(Oral Presentations)

Public health interventions for alcohol, tobacco, and ultra-processed food consumption in lower socioeconomic position groups: A critical umbrella systematic review

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Background: Rates of non-communicable diseases (NCDs) arising from alcohol, tobacco, and ultra-processed food consumption are higher among lower socioeconomic position (SEP) populations. An umbrella review aimed to synthesise evidence on the effectiveness of public health interventions for alcohol, tobacco, and ultra-processed food consumption in lower SEP populations. It concludes with a critical reflection on the relative profiles of individual verses situational intervention model of change.

Methods: Five databases were searched using selected search terms. Included articles evaluated public health interventions to reduce alcohol, tobacco, or ultra-processed food consumption in a lower SEP population. Ecological levels of interventions were categorised using Dahlgren and Whitehead's (1981) social determinants of health model, and McGill et al.'s (2015) adapted 6 P's framework of underlying mechanism of change. Evaluations were synthesised using narrative synthesis.

Results: Across 11 systematic reviews, individual-focused approaches to behaviour change predominated relative to situational or environmental approaches. Most interventions occurred at the ecological level of individual lifestyle factors, and 6 P's framework category of person. Fewer occurred at the levels of socioeconomic, cultural, and environmental conditions, or social and community networks; or framework category of price or promotion. Evaluations of individual-level interventions which compared to a control intervention tended to find increased effectiveness, whereas those which compared to a higher SEP population tended to find mixed effectiveness. Randomised controlled trials tended to evaluate interventions at lower ecological levels, whereas observational designs tended to evaluate those at higher ecological levels.

Conclusions and implications: Interventions favoured individual ecological levels, although evidence for effectiveness may be affected by comparators and evaluation designs used. Increased focus on interventions at higher ecological levels may reduce inequalities. Greater incorporation of complex theoretical and methodological approaches should be used to develop and evaluate interventions. More evidence is needed on how and why interventions work in lower SEP populations.

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Current and future trends in the consumption, sales and purchasing of no- and low- alcohol products in Great Britain between 2014 and 2023

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Background: The rapid emergence of no- and low-alcohol (no/lo) products, containing less than or equal to 1.2% alcohol by volume, could have a major impact on public health if people drink no/lo products instead of standard alcoholic drinks. The UK Government's green paper committed the Government to working with industry to deliver a significant increase in the availability of no/lo products by 2025. This paper conducts descriptive and time series analyses to characterise trends of no/lo sales and consumption in Great Britain between 2014 and 2023. We then forecast expected growth to 2025 to align with current UK Government policy.

Methods: We analyse data from CGA (on-trade sales), IRI (off-trade sales), and the Alcohol Toolkit Study (consumption) to conduct seasonal autoregressive integrated moving average (SARIMA) time series analysis. Our indicators include: the percentage of pubs/bars offering a no/lo beer on draught, the percentage of total on-/off-trade alcohol sales volume that is no/lo, and the percentage of increasing or higher risk households who are increasing their purchasing of no/lo products relative to alcohol products in the off-trade.

Results: The proportion of alcohol sales volume in servings accounted for by no/lo products is estimated to rise from 0.9% in 2020 to 1.6% in 2025 in the off-trade and from 0.2% to 0.7% in the on-trade. We forecast that the percentage of hazardous or harmful drinkers self-reporting using no/lo products in their most recent attempt to cut down to rise from 24.0% in 2020 to 34.7% by the end of 2025.

Conclusions and Implications: No/lo sales and consumption have expanded substantially from a low baseline and that they will continue to do so to the end of 2025. However, given large uncertainties in future trends, intervention may be needed to achieve large enough sales to have a major public health impact.

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Understanding reductions in alcohol consumption following participation in Dry January

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Background: Participation in Dry January has previously been associated with reductions in alcohol consumption 6 months later with increased drink refusal self-efficacy (DRSE) appearing to mediate this change (de Visser et al., 2016). In this study we aimed to explore the roles of other factors in these reductions including seasonal variation in alcohol consumption, access to structured supports and changes in other psychological constructs.

Methods: We conducted a prospective observational study recruiting three groups of participants: 'Official' (people registering for the official Dry January campaign; n= 290), 'Unofficial' (people attempting a dry January without registering; n=114) and 'No Dry January' (n=225). Participants completed a series of online surveys: pre-January, post-January, 3-months and 6-months. Alcohol consumption (AUDIT-C), motivation to change, DRSE, drinker identity and use of online supports were measured at each timepoint.

Results: 'Official' Dry January participants had a significant reduction in AUDIT-C from 9.43 (SD=1.91) at baseline to 7.63 (SD = 3.02) at 6-months (t(289) = 11.33, p<.001, d = 0.71). At 6-month follow-up, AUDIT-C was lower for 'Official' participants compared to the 'No Dry January' (F(15, 499) = 16.02, p<.001) and 'Unofficial' groups (F(14,389) = 11.59, p<.001). Among 'Official' participants AUDIT-C at 6 months was predicted by individual differences in DRSE, drinker identity, motivation to change and baseline alcohol consumption.

Conclusions and Implications: Participation in Dry January is associated with a reduction in alcohol consumption 6-months later which is not fully attributable to seasonal variation in consumption. Registering for Dry January is associated with greater reductions than attempting an independent dry January. Harnessing relevant psychological factors may help people to get the most out of Dry January.

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The Impact of Physical Activity on the Recovery from Alcohol Dependence: A Systematic Review

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Background: This study investigated the effectiveness of physical activity (PA) on the early recovery from alcohol dependence (AD). This included examining alcohol-related, psychosocial, physiological outcomes, service user (SU) attitudes, and preferences towards PA and the barriers and facilitators of engaging in PA.

Methods: A narrative analysis was conducted and articles for inclusion were identified through Medline, CINAHL Complete, PSYCInfo, and SPORTDiscus between May 2021 and January 2022 using a search strategy developed around key search terms "alcohol use disorders", "alcohol dependence", "alcoholism", "physical activity" and "exercise". Full description of criteria is available from www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42021232904.

Results: We identified 26 papers that indicated mixed findings on the effectiveness of PA on recovery from AD. PA has a potential to improve alcohol-related (i.e., drinks per drinking day, percent drinking days and abstinence), and psychosocial outcomes (i.e., depression, anxiety, quality of life, self-efficacy). No effect on physiological outcomes was found (i.e., VO2 max). Alcohol dependent SUs have positive attitudes towards engaging in PA. Preference for the type of PA were walking followed by jogging, strength training, gym, swimming, cycling, and dancing. Main benefits of PA perceived by the SUs involved feeling stronger, improved health, being fit, increased confidence, and improved social interaction. Perceived barriers mainly included sustaining injuries, lack of equipment, transportation problems, lack of motivation and knowledge.

Conclusions and Implications: The review findings indicate potential benefits of physical activity on the early recovery from alcohol dependence. By considering the most preferred exercise types, barriers and benefits, more structured interventions can be developed and the influence of physical activity on different outcomes can be enhanced. There is a need for further studies with larger samples, and greater methodological strength to examine the effectiveness of physical activity on the early recovery from alcohol dependence.

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C.4 PRIMARY CARE

(Oral Presentations)

The behavioural mechanisms of a primary care intervention to proactively identify oropharyngeal dysphagia in older adults and provide advice: A focus group study

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Background: 30% of older adults have swallowing difficulties known as oropharyngeal dysphagia (OD), but it is not identified and managed until it has caused harm, e.g., malnutrition, aspiration pneumonia and hospitalisation. A behavioural science realist review developed five programme theories (PTs) to describe how interventions support primary care healthcare professionals (HCPs) to proactively identify OD and provide advice: 1) OD education and training, 2) OD identification tools, 3) incorporating OD into existing workflow, 4) making HCPs aware that older adults and carers expect them to address OD in primary care and 5) raising awareness of the adverse outcomes of failing to identify OD. The aim of this focus group study was to understand the barriers and enablers to proactively identifying OD and providing advice from the perspective of NHS primary care HCPs.

Methods: Three 90-minute focus groups were convened with 19 primary care HCPs (general practitioners, pharmacists, nurses and pharmacy technicians). Analysis was underpinned by the Theoretical Domains Framework and followed three stages; inductive thematic analysis to identify barriers and enablers to OD identification and management, deductive mapping of barriers and enablers to existing PTs and generation of new PTs from any remaining barriers and enablers.

Results: Focus group data supported all five PTs from the realist review. Three new PTs were also generated; Changing HCP perceptions that OD is a red flag for cancer (Beliefs about consequences), practical support to provide advice (Social/professional role and identity) and providing incentive to identify OD and provide advice (Reinforcement).

Conclusion and implications: Interventions to support identification and management of oropharyngeal dysphagia in primary care should be underpinned by these eight programme theories. Co-design workshops with healthcare professionals, people with oropharyngeal dysphagia and commissioners will develop a comprehensive behaviour change intervention, appropriate for the NHS primary care context.

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How can we optimise educational resources for GPs to improve confidence and knowledge in the recognition and referral of suspected cancer?

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Background: GPs play an important role in the recognition and referral of suspected cancer. Educational resources can be useful to support GPs with upskilling and improving confidence in decision making in cancer management. As such, the research set out to explore GPs' behaviour in accessing and using resources, to produce best practice recommendations for the development of useful resources for GPs.

Methods: 30 in-depth online interviews were conducted by 2CV with GPs across all UK nations (November 2023). The behavioural science COM-B model was used as a framework for the topic guide to explore GPs' access and use of educational resources; factors that influence self-learning; and potential approaches to optimise use of resources in cancer management. The responses were analysed using thematic analysis.

Results: GPs do not have sufficient time to participate in self-education. They typically source materials when a gap in knowledge appears in the moment. Consequently, GPs appreciate easy-to-read, concise materials with a clear purpose. GPs have habitual tendencies when searching for resources, often utilising the same brands due to comfortability and ease. They are unlikely to source new information unless directly sent to them and easily remembered. Additionally, GPs rely on word-of-mouth when building trust with new resources. Resource sharing between colleagues is thus a valuable consideration when distributing educational materials.

Conclusions and implications: Several behavioural enablers and barriers play a role in how GPs use educational resources. Learning providers must consider how best to develop resources that are convenient to access and read. Interventions to encourage GPs to share resources with colleagues would be valuable for a greater spill-over effect, where the Practice use the same resources over time. Communication plans should be optimised, ensuring GPs are continuously made aware of new educational resources for them to become a more habitually used resource and brand.

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Healthy hearing: exploring the perspectives of hearing healthcare professionals and adults with hearing loss toward the promotion of positive health behaviours

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Background: Older adults with hearing loss are at an increased risk of developing noncommunicable diseases, such as cardiovascular disease and diabetes. As such, there is a need to improve the holistic health of this population. While clinical appointments with hearing healthcare professionals (HHCPs) may be an opportune time to promote positive health behaviours (e.g., physical activity), no research to-date has assessed this. Therefore, this study aimed to explore the perceptions, experiences, and awareness of both older adults with hearing loss and HHCPs regarding the associations between hearing and other health conditions, as well as whether clinical appointments could be used to promote healthy behaviours to reduce noncommunicable disease risk.

Methods: Semi-structured interviews were employed to explore perceptions, experiences, and awareness of older adults with hearing loss (N=10) and HHCPs (N=10) regarding the promotion of healthy behaviours. Data were analysed using an established inductive reflexive thematic analysis procedure to identify candidate themes regarding participants' awareness and beliefs of the potential interplay between hearing and other health conditions.

Results: Results suggest that older adults with hearing loss are not aware of the link between hearing loss and overall health. Additionally, although HHCPs are acutely cognisant of the link between hearing loss and other health conditions, they are unsure on how to appropriately educate their patients and promote positive health behaviours in clinical settings.

Conclusions/Implications: This study provides insight into the lack of awareness of adults with hearing loss concerning how their hearing- and general-health might be (inter)related. Additionally, HHCPs are uncertain about how they can promote health behaviour change in their patients. Results from this study will inform a future consensus exercise utilising the Delphi method, which will develop best practice guidelines amongst HHCPs on strategies to encourage positive health behaviours in adults with hearing loss during clinical appointments.

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Trends and socioeconomic inequalities in dental attendance in adult smokers in Scotland from 2009 to 2019, a repeated cross-sectional study

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Background: Smoking continues to be the single largest cause of preventable disease and death and a major contributor to health inequalities. Dental professionals are well placed to offer behavioural support combined with pharmacotherapy to increase smoking cessation rates across the population. We aimed to investigate trends and socioeconomic inequalities in dental attendance of adult smokers in Scotland between 2009 and 2019, with a view to assessing the potential population reach of dental professionals to access this group and provide smoking cessation interventions.

Methods: A secondary analysis was conducted of Scottish Health Surveys from 2009-2019. 'Recent' dental attendance (within the past two years) was the focus and descriptive analysis examined attendance of self-reported smokers compared to non-smokers and stratified by the area-based Scottish Index of Multiple Deprivation (SIMD) and individual socioeconomic measures (income, education, and occupation). Modified Poisson regression was used to model attendance in smokers relative to non-smokers adjusted by the socioeconomic measures.

Results: Attendance was generally high, it increased in all SIMD groups and by 2017/19 76% of smokers (vs 85% non-smokers) recently attended. However, a social gradient persisted with an absolute inequality difference of 8-9% remaining between SIMD 1 (most deprived) and SIMD 5 (least deprived) in smokers. After adjusting for sociodemographic factors, smokers were still slightly less likely to have recently attended than non-smokers, despite overall attendance rates being high by 2017/19 (aRR 0.92, 95% CI 0.87, 0.97).

Conclusions and Implications: A high and increasing proportion of smokers in the population attend the dentist. Dental settings provide a good potential opportunity to deliver population-level smoking cessation interventions. However, a small percentage of smokers in the most socioeconomically deprived groups may be missed and attention should be given to proportionate universal approach to ensure these groups are targeted and supported to access dental services for these preventive opportunities.

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C.5 NOVEL METHODS

(Oral Presentations)

Making behaviour change intervention evidence computer readable using ontologies

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Background: Thousands of papers reporting behaviour change interventions are published every year making systematic reviews arduous and, as a result, much research evidence is wasted. Computers can assist in finding papers, but inconsistency of language prevents reports being computer readable. If research reports were computer readable, then the data extracted could be used in a timely manner to predict outcomes about particular scenarios that could be of interest to policymakers, planners, practitioners etc. We therefore aimed to develop ontologies to enable computer reading of intervention reports.

Methods: An iterative process of research team discussion, ontology search, literature review, development of provisional ontologies, annotation of research reports, inter-coder reliability testing and stakeholder review.

Results: The resulting upper level ontology included the target behaviour, intervention content and delivery, mechanisms of action, context (population and setting) and reach/engagement. Ten lower-level ontologies have been developed (target behaviour, target population, intervention setting, behaviour change techniques, mode of delivery, intervention source, intervention schedule, dose & style of delivery, and mechanisms of action, exposure of intervention, reach & engagement) containing, at the time of writing, 1419 classes of entity. For most of the lower-level ontologies, reliability of coding research reports has achieved acceptable standards for coders involved in the ontology development and for novice coders. The entities have been allocated unique identifiers and URLs enabling computer readability and easy access. Use of the ontologies to report behaviour change interventions using unique identifiers will be illustrated.

Conclusions and Implications: The ontologies developed provide a resource for reporting and for computer readability of behaviour change interventions. The ontologies are curated in the Behaviour and Social Science Foundry (www.bssofoundry.org) which will oversee updating, proposed amendments and improvements. The ontologies can be used to annotate existing reports and to report interventions in a computer readable format.

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Translation of a causal loop diagram to a systems-based Theory of Change for a peer-influence intervention to reduce young people’s night-time social media and device use

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Background: Adolescent social media device use and its impact on sleep and mental health is increasingly recognised as being the product of a complex system. Mapping the constituent parts of the system, their connections and the emerging network with relevant stakeholders is crucial for understanding the factors surrounding any intervention aiming to create system change. The aim of this presentation is to demonstrate how a systems map can be develop into a systems-based Theory of Change (ToC) in the field of public health intervention development.

Methods: A total of 23 adolescents (11-14 years) from 4 schools and 7 adults took part in five online participatory systems mapping workshops. Three causal loop diagrams (CLD) were created, combined and refined by researchers and then separately validated by a group of adolescents and adults. Upon further researcher-led refinement of the CLD, intervention activities and intermediate outcomes of the linear draft ToC for a peer-influence intervention to reduce young people’s night-time social media and device use were mapped on to system factors. The final step involved adding and connecting missing intervention inputs and mechanisms to create the new ToC.

Results: Of the 72 CLD factors, 16 align with the intervention activities (e.g. modelling of device use behaviour) and 10 with intermediate outcomes (e.g. awareness of effect of night-time device use). The CLD included 46 contextual and mechanistic factors and new factors were added from the linear ToC (e.g shift in social norms). 12 intervention inputs were connected to activities and contextual factors.

Conclusions and Implications: This research presents novelty in three ways: (i) applying the method of systems mapping with a group of adolescents, (ii) engaging adolescents beyond typical public health intervention development activities, and (iii) creating a systems-based ToC which extends the typically known components of a linear ToC.

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Prevention of, and response to, sexual harassment at secondary school: A systems map

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Background: Sexual harassment in secondary school is common but only recently recognised as a widespread problem in the UK. There is limited research on how schools handle the prevention and response to sexual harassment. The aim of this study was to understand how school systems shape the dynamics of disclosure, reporting and handling of sexual harassment in school (including behaviours, processes, norms), and to identify opportunities for effecting systems change.

Methods: We used participatory systems mapping to elicit school stakeholders' perspectives on systems factors and their connections. Researchers built the map based on in-person workshops with students (n=18) and staff (n=4) from three schools in Scotland. Survey data (n=638 students; n=119 staff) was used to triangulate qualitative findings and augment understanding of perspectives. The map was validated via three workshops involving participants from seven schools (2 online, 1 in-person). Network measures helped identify potential leverage points.

Results: The final map (causal loop diagram) represents a hypothesised system of 25 causally connected factors and three feedback loops shaping the disclosure, reporting and handling of sexual harassment. We grouped these factors into four interlinked themes: 1] understanding of and confidence to intervene and report sexual harassment); 2] the degree of trust in the reporting system and processes; 3] balancing student confidentiality and effective communication between staff and external agencies after an incident is reported; and 4] prioritisation of sexual harassment by school leadership. Leverage points with potential for systems change centre around prioritisation of sexual harassment and increasing staff and student knowledge on the topic.

Conclusions and implications: This study highlights the interconnectedness of factors shaping the prevention and response to sexual harassment within secondary schools. Schools and the wider education sector can use the map to (re)evaluate dynamics in school systems and focus resources on factors with most leverage for change.

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Parallel Session D

D.1 SYMPOSIUM: Self-harm amongst children and young people – exploring evidence to understand need, influences, and pathways to improve treatment

Self-harm amongst children and young people – exploring evidence to understand need, influences, and pathways to improve treatment

Convenor: Dr Rachel Harris
Specialist Children's Services, NHS Greater Glasgow & Clyde

Discussant: Julie Metcalfe
Child & Adolescent Mental Health Services, NHS Greater Glasgow & Clyde

Purpose: To share quantitative and qualitative data from Scotland's largest health board, alongside published literature on need, changing influences, and treatment pathways for children and young people (C&YP) who self-harm or present with suicidal ideation. This at a time when Scotland has published the first national Self-Harm Strategy and Action Plan.[1]

Objective: To link projects from different specialities to help improve our understanding, with the aim of improving outcomes for C&YP.

Rationale: It has long been reported that self-harm and suicide are significant public health problems in young people.[2] Nonetheless, evidence of need is not easily compiled across services, or even within them, to inform prevention or early intervention at a regional level. Furthermore, while a range of factors have been identified that contribute to self-harm and suicide behaviours (such as genetic vulnerability, or psychological, familial, social, and cultural influences), the rise and impact of social media usage has drawn concern. Evidence regarding the latter comes from an emerging field, although consensus suggests both benefits and drawbacks. Nonetheless, there is a paucity of models to explain the association of social media use with mental health, including a lack of robust understanding of risk and protective factors that could be used to support C&YP who may be particularly susceptible. Accounts from young people with experience of self-ham regarding the impact of social media are also rare. Finally, there is also limited research on the experience of treatment amongst high-risk groups.

This symposium will present findings from projects that acknowledge and attempt to address some of these gaps, but also to add value by working together and utilising a range of methods and data sources.

[1] Scottish Government. (2023). Self harm strategy and action plan 2023 to 2027 (p. 33). http://www.gov.scot/publications/scotlands-self-harm-strategy-action-plan-2023-27/

[2] Hawton, K., Saunders, K. E., & O'Connor, R. C. (2012). Self-harm and suicide in adolescents. The Lancet, 379(9834), 2373–2382. https://doi.org/10.1016/S0140-6736(12)60322-5

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Hidden Numbers: Self-Harm Health Needs Assessment for Children and Young People in NHS Greater Glasgow & Clyde (NHS GGC)

Dr Euan Fisher
NHS Greater Glasgow and Clyde

Background: Self-harm amongst children and young people (C&YP) is broadly recognised to be a significant issue. Despite this, large gaps in understanding persist, obscuring the full scope of mental health needs in this population. This Health Needs Assessment (HNA) sought to understand trends, evidence and stakeholder views of self-harm in the NHS GGC C&YP population.

Methods: The HNA employed a mixed-methods approach, incorporating quantitative data from school surveys, hospital admissions, and primary care presentations, alongside qualitative data from focus groups involving Child and Adolescent Mental Health Service (CAMHS) and Education professionals. A narrative literature review approach was taken throughout, with recommendations for action mapped to the recently published Scotland's Self-Harm Strategy and Action Plan (2023-27). [1]

Results: Locally conducted school surveys indicate that between 25-30% of young people may have self-harmed at some point, with rates highest in females. Academic evidence also points to LGBTQ+ and/or neurodiverse

C&YP as being particularly at risk. Hospital admissions due to self-harm have continued to rise in recent years, with the commonest self-harm method being self-poisoning. Primary care presentations for self-harm reasons have also increased sharply. Key risk factors identified include bullying, low self-esteem, and body image issues. Large evidence gaps around prevention and early intervention were highlighted. Broader systems issues include the need for improved cross-disciplinary working between Education and Healthcare to ensure continuity of support across settings.

Conclusions and Implications: This HNA highlights a critical need for enhanced data collection and research on self-harm in the C&YP population. Evidence gaps and non-compatible data systems render gaining population insights challenging, as demonstrated by the fact it is not currently possible to comprehensively evidence regional demand for Tier 2 mental health support. Ongoing work is required at a whole-systems level to address the issues identified and align NHS GGC with Scottish Government strategic direction.

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Exploring the patient journeys of young people who have suicidal thoughts or who self-harm and are referred to CAMHS

Dr Gayle Cooney[1], Dr Rachel Harris[1]
[1]Specialist Children's Services, NHS Greater Glasgow & Clyde

Background: In the UK between 2008 and 2018, 626 children and young people (C&YP) died by suicide per year on average, with 21% under the care of mental health services. Suicidal thoughts and the risk of completed suicide are very real, and a key role of Child and Adolescent Mental Health Services (CAMHS) is to support C&YP and reduce the frequency of these thoughts. Self-harm is any kind of intentional damage or self-injury, and rates are increasing in C&YP.

Gilmour et al (2022) found variability in practice across two health boards for young people referred with suicidal thoughts. Little detailed information is reported on pathways specifically for C&YP with suicidal or self-harm symptoms who have been referred to CAMHS. Having a clear picture is critical for understanding whether services are operating effectively.

Method: A historical cohort (n≈1500) is used to investigate the patient journey of C&YP referred in 2022 with suicidal thoughts or self-harm behaviours. Data derived from electronic health records includes a combination of de-identified administrative data and case note review.

Results: Analysis is under way. Trends in referrals and associated demographic patterns will be explored, along with acceptance rates, waiting times, and appointments offered and attended. Use of risk assessment and interventions delivered will be reported.

Conclusions: Findings will be used to improve consistency of clinical care for children and young people referred to CAMHS experiencing difficulties with suicidal thoughts or self-harm.

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Does social media impact on mental health and self-harm amongst young people? Learning and limitations from the literature

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[1]Specialist Children's Services, NHS Greater Glasgow & Clyde, [2]Subject Specialist Librarian, NHS Greater Glasgow & Clyde, [3]Mental Health Improvement Team, NHS Greater Glasgow & Clyde

Background: It has been suggested rising mental health concerns, including self-harm, amongst children and young people (C&YP) are linked to increased social media use. Yet, in this emerging field, findings are inconclusive. There is a lack of models explaining the association of social media use with mental health, including risk and protective factors that could be used to support C&YP who may be particularly susceptible. This study explored global evidence to understand the influence of social media along with the limitations of existing evidence.

Methods: Medline and PsycInfo searched for articles on the impact of technology use on mental health in C&YP (2020 onwards). An additional latter search focused on interventions for social media and self-harm (2017 onwards). Title and abstracts were double screened, with articles included when they reported on social media and its impact on mental health and self-harm among C&YP aged 12–25.

Results: In total, 246 articles and 19 reports were retrieved. Preliminary insights from the review revealed key motivations driving young people to use social media, including social interaction/peer support, boredom alleviation, information sharing, appearance feedback, and social capital. The review found evidence indicating positive associations between social media and self-esteem/identity, life satisfaction, depression, social anxiety, and loneliness. Additionally, internet use was suggested to be a potential risk factor for self-harm. Limitations identified within existing evidence included: predominantly cross-sectional research designs, an over-reliance on subjective outcome measures, and scant use of explanatory variables.

Conclusions: This review illuminates C&YP's motivation for using social media, the dualistic impact of social media on mental health, and adverse effect on self-harm. Findings raise concern for the wellbeing of this population and highlight the need for rigorous research, including longitudinal designs to establish causal effects of social media. Furthermore, interventions for promoting healthy social media use should consider identified motivations.

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"It's not safe and consistent": An exploration of social media and self-harm among young people

Laura Hills (presented by **Dr Gayle Conney**)
NHS Greater Glasgow and Clyde

Background: Evidence is emerging about the potentially harmful association between social media and self-harm. This exploratory project aimed to contribute to this by investigating the lived experience of young people using social media who have had experience of self-harm and the potential risks and protective factors social media offers them.

Methods: Following the development of a robust ethical framework, a series of four focus groups were held by Youth Interventions, a local voluntary organisation. In total, 18 young people aged 16-23 living in the Renfrewshire area who have experience of self-harm and who use social media took part. The focus groups were transcribed and then thematically analysed.

Results: Participants described the unique social media experiences of those who self-harm. Social media platforms are often unsafe spaces where they can encounter a range of harmful and triggering content, such as content glamorising and encouraging self-harm, and stigmatising attitudes. Social media was presented as having a complicated relationship with those who self-harm, providing an inconsistent and volatile source of support. The social media platform's algorithms presented material that was triggering and unpredictable, often promoting self-harm-related content when young people were not actively seeking it. A range of suggestions were given regarding helpful approaches and responses professionals can adopt to support young people.

Conclusions: This exploratory project has provided novel insights into the complex and nuanced relationship between social media use and self-harm among young people. The findings highlight the vital importance of those working with young people in developing their digital literacy and understanding of young people's online lives, particularly in the context of those who self-harm. Research is required to explore this relationship in more depth, including in the context of new legislation, the Online Safety Act.

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D.2 INEQUALITIES

(Oral Presentations)

Engaging disadvantaged communities in the design of a behaviour change health and wellbeing incentive intervention

Dr Julie Cowie, Scott Findlay, Dr Karen Berry, Dr Rhonda Archibald, **Dr Sinead Currie**

Background: Research in intervention design stresses the importance of stakeholder involvement – working with rather that impose ideas on communities. The aim of this study was to partner with two disadvantaged communities to co-design and feasibility test a behaviour change health and wellbeing incentive intervention.

Methods: The design phase of our study was split across three distinct stages; relationship building, community engagement, and intervention proposal and refinement. We engaged with community citizens in different ways across these three stages with the aim of optimising involvement and understanding needs and wants of citizens.

At the start of our study, we conducted a systematic review addressing community incentive interventions. Findings were presented as vignettes at two community café events to support discussion around intervention characteristics and behaviour change elements. Community needs and wants were articulated and initial intervention ideas formulated. Further engagement through pop-up cafes, community cafes and drop-ins gave citizens the opportunity to refine the intervention. As relationships with citizens strengthened and an understanding of what engagement methods worked well and for what purpose, methods adapted accordingly.

Results: By adopting a flexible approach to community engagement, we were successful in engaging with a wide range of citizens. Our methods allowed us to become familiar faces in our communities, facilitating strong relationship building and promoting credibility and trust. The resulting intervention (ELLY – Enjoy Life Locally) is shaped and owned by our communities. It is sympathetic to local context and builds on existing assets and champions. It provides social support, adds to the community environment and incorporates rewards to support sustained behaviour change.

Conclusions and implications: Flexible methods of engagement enabled the successful co-design of an incentive health and wellbeing intervention. Adaptability, and reflexivity about what works well and for what purpose are key contributors to ensuring reach and engagement are maximised.

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ChatGPT in Healthcare Research: Optimising Text for Audiences with Lower Literacy Levels

Dr Hannah Bowers[1], Dr Cynthia Ochieng, Dr Sarah E Bennett, Dr Sarah Denford, Milly Johnston, Stephanie Chambers, Guarav Saxena, Lucy Yardley
[1]University of Southampton / University of Bristol

Background: The Covid-19 pandemic highlighted a need to develop novel methods for rapidly developing health interventions for diverse audiences. ChatGPT is a generative AI tool. It has been evaluated in a range of health research contexts with mixed results. We aimed to evaluate how ChatGPT could be used to rapidly optimise intervention text and participant information sheets to be more accessible for adults with lower reading abilities.

Methods: We conducted a series of case studies in which we asked ChatGPT to optimise text for health interventions and for participant information sheets. Our prompts for ChatGPT were designed in an iterative fashion throughout our series of case studies. Outputs were evaluated by behavioural scientists, PPI contributors and a readability checking tool.

Results: ChatGPT was able to rapidly optimise text so that it is accessible for those with lower reading abilities, with some limitations (e.g. ChatGPT sometimes excluded crucial information). Optimal prompts were specific (e.g. providing a clear reading age, asking to include bullet points and instructions around what tone is appropriate) and included a ‘persona’ to guide ChatGPT’s skillset.

Conclusions and implications: ChatGPT is a useful tool to rapidly optimise text in healthcare research but requires careful evaluation and further input from behavioural scientists and PPI. Through our case studies, we have refined ways to prompt ChatGPT to produce outputs which are appropriate and accessible for lay audiences with lower reading abilities. We have produced guidance on how to do this effectively so that other researchers can rapidly optimise text in healthcare research. We are also in the process of building a version of ChatGPT that specialises in optimising text for healthcare research (i.e. participant information sheets).

Socioeconomic and other inequalities in unscheduled care admissions and outcomes among the Greater Glasgow and Clyde population

Amurdhavani Balakrishnan Sivaprakash[1], Dr Claire E Hastie[1], Jill P Pell[1], Jim Lewsey[1]
[1]University of Glasgow, Glasgow, United Kingdom

Background: In the United Kingdom, Accident & Emergency (A&E) services offer immediate medical care without the need for a prior appointment. Current health policies aim to reduce the use of unscheduled care to decrease healthcare system strain and costs; analysing socioeconomic disparities can guide these policy enhancements. This study aims to investigate inequalities in unscheduled care attendance and outcomes in Greater Glasgow and Clyde, such as mortality, discharge, immediate hospital admission and repeat presentations, focusing on factors age, sex, socioeconomic status, and ethnicity.

Methods: A retrospective, observational cohort study design was used, analysing linked unscheduled care and hospital datasets from NHS Greater Glasgow and Clyde Safe Haven. Binary logistic regression was applied to examine associations between sociodemographic variables and unscheduled care outcomes, with adjustments for admission year, cause, and comorbidities. AUC values assessed model discrimination. Results are based on a random sample of 5000; full dataset analysis will be presented at the conference.

Results: From a random sample of 3610 A&E patients (2018-2022), there was 2.8% mortality within 30 days. Out of 5000 A&E admissions (2012-2022), there was 87.4% same-day discharge, 53.8% immediate hospital admission, and 39.6% repeat visits within 30 days. Age significantly predicted all outcomes ($p < 0.001$). Less deprived patients had lower odds of immediate admission (OR: 0.58, 95% CI: 0.47-0.71) and repeat visits (OR: 0.53, 95% CI: 0.43-0.65) with moderate discrimination (AUC: 0.80 and 0.79). Those with medical conditions and comorbidities had significantly worse outcomes (p-values <0.001).

Conclusion and implication: Older and sicker patients, particularly those with medical conditions, experience worse unscheduled care outcomes. While socioeconomic disparities are not evident in 30-day mortality, they are present in immediate admission and repeat visits, highlighting inequalities in post-discharge support. Further investigation into clinical severity and cause-specific outcomes is essential for developing public health interventions to support vulnerable populations.

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Determinants of maternal vaccination inequity in England: the maternity staff perspective

Dr Emma Anderson[1], Prof Peter S Blair[1], Prof Adam Finn[1], Prof Jenny Ingram[1], Dr Christie Cabral[1]
[1]University of Bristol

Background: UK Pregnant women are recommended to be vaccinated against pertussis, influenza and Covid-19 to protect them and their babies. Uptake is suboptimal, with large variability between regions (e.g. pertussis: North London 32%; Shropshire 81%) and demographic groups (lower uptake associated with deprivation, minority ethnicity, and younger maternal age). We aimed to identify modifiable factors to improve uptake and reduce inequity by comparing low- versus high-vaccinating areas.

Methods: National cross-sectional online survey of NHS maternity HCPs who discuss vaccines with patients, comparing areas of highest (>75%) and lowest (<60%) maternal pertussis vaccination coverage. Questionnaire design and analysis applied the COM-B framework to assess vaccination antecedents (HCP perceptions of vaccination-related knowledge/skills, workplace social/environmental factors, beliefs and behaviours).

Results: 551 HCPs from 39 trusts (20 in high-, 19 in low-vaccinating areas) participated between 11/2022–05/2023. Most were female midwives working in hospital settings. We confirmed low-vaccinating areas were associated with patient deprivation. More respondents from low-vaccinating areas actively administered pertussis vaccines and were of minority ethnicity. Controlling for these factors, HCP-rated antecedents significantly (p<0.05) different between low/high vaccinating areas were:

- Knowledge/skills: confidence in discussing vaccination (84% low; 93% high); use of specific information resources* (27% low, 37% high); desire for training in administering vaccines* (46% low; 32% high)
- Physical environment: having access to trustworthy information to offer patients* (73% low, 80% high); pertussis vaccination available in community appointments* (40% low, 22% high)
- Social environment: none

- Beliefs: finding vaccination discussions burdensome (14% low, 7% high); maternity services currently having primary responsibility for vaccination* (68% low, 49% high);
- Behaviour: often/always re-discussing vaccination knowing patient previously declined* (46% low, 36% high).

*Initial modelling suggests these variables are the most significant; this is to be confirmed with further analysis.

Conclusion and implications: Modifiable factors were identified and a predictive model and potential for intervention will be presented.

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How, when, and why is social class linked to mental health and wellbeing? A systematic meta-review

Dr Isla Dougall[1], Dr Milica Vasiljevic[1], Jack Wright[1], **Prof Mario Weick**[1]
[1]Durham University

Background. Existing meta-reviews synthesising research on social class and mental health have a narrow scope and none sought to identify mechanisms in this relationship. The present meta-review sought to (1) assess the overall relationship between social class and mental health and wellbeing, (2) determine the mechanisms that act in this relationship, and (3) evaluate the strength of evidence available.

Methods. The protocol was prospectively registered on PROSPERO. We systematically searched twelve databases in September 2022 and identified 149 eligible reviews from 38,257 records screened. Quality of evidence was assessed with the JBI levels of evidence and risk of bias with the ROBIS tool.

Results. A large but low-quality evidence base points to class-based inequalities in mental health and wellbeing, with the strongest available evidence linking lower social positions to an increased risk of depression. In terms of different facets of stratification, the best available evidence suggests that deprivation (e.g., poverty), socioeconomic status, income, and subjective social status are consequential for individuals' mental health and wellbeing. However, high-quality evidence for the roles of education, occupation, other economic resources (e.g., wealth), and social capital is currently limited. Considering mechanisms, we found some evidence for mediation via subjective social status, sense of control, and experiences of stress and trauma. There was also some evidence that higher socioeconomic status can provide a buffer for neighbourhood deprivation, lower social capital, and lower subjective social status.

Conclusions and Implications. There is some higher-quality evidence linking lower social positions to depression. Evidence for mechanisms that act in the relationship between social class and mental health and wellbeing exists but is fairly limited. The evidence also varies across different facets of social stratification. We require low-bias reviews synthesising high-quality primary studies to advance this area of research.

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D.3 DIGITAL HEALTH

(Oral Presentations)

User engagement with a nationally implemented digital programme to support type 2 diabetes self-management

Dr Rhiannon Hawkes[1], Dr Antonia Marsden[1], Dr Sarah Cotterill[1], Dr Jack Benton[1], Prof David French[1]
[1]University of Manchester, Manchester, United Kingdom

Background: Digital self-management interventions for people living with type 2 diabetes (T2DM) may be a scalable way to overcome barriers associated with attendance at face-to-face sessions. However, engagement with the content of digital programmes is often low, which may impact effectiveness. 'Healthy Living' is a web-based self-management intervention for people with T2DM, nationally implemented across England from 2020. Healthy Living consists of online structured and unstructured education (e.g., via articles) and 'Tools' components to help users self-manage their condition (e.g., setting goals). This study reports user engagement with Healthy Living.

Methods: Anonymous usage data was obtained for registered users who activated a Healthy Living account between May 2020 and September 2023. Usage was calculated for number of sessions completed, duration of time spent on the website, number of articles accessed, and components of the website that were accessed. Descriptive statistics (frequencies, percentages, means, medians and ranges) were reported.

Results: Of 27,422 users who activated an account, 55.0% of users (n=15,089) completed only one session, and 27.7% of users (n=7,608) spent, in total, less than one minute on the website. Of those who accessed content (n=19,140), 44.6% of users (n=8,538) accessed between 0-9 articles from the structured education, but only 4.94% of users (n=945) reached the final section of the structured education. Most users who accessed content did not access any unstructured education content (69.6%; n=13,315). The goal setting tools were accessed by 12.0% of users who accessed content (n=2,303), but were mostly used only once.

Conclusions and implications: The current study provides data on 'real word' use of a digital self-management programme. The low engagement in this national rollout are consistent with figures from other digital programmes. There is a need to identify how to encourage engagement in web-based interventions. Future research will examine engagement as a moderator of effectiveness.

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Identifying and characterising digital behaviour change interventions to improve fruit and vegetable intake in low-socioeconomic status primary school children: A Systematic Review

Hannah Froome[1], Dr Kei Long Cheung[1], Dr Wendy Martin[1], Dr Emma Norris[1]
[1]Department of Health Sciences, Brunel University London, England

Background: Digital behaviour change interventions aiming to increase fruit and vegetable intake in low-socioeconomic children are being developed. However, there is currently no synthesis of the characteristics or reported effectiveness of these interventions. This systematic review aims to: (1) identify existing digital interventions targeting fruit and vegetable intake in low-socioeconomic status children, (2) identify characteristics and effectiveness of these interventions using the Behaviour Change Intervention Ontology.

Method: CINAHL, ERIC, PubMed, Cochrane Library, ACM Digital Library and Scopus were searched from December 2021 – February 2022. Inclusion criteria were: 1) children of low-SES families, aged between 5-11 years old; 2) Digital intervention to improve fruit and vegetable intake; 3) Digital or non-digital comparison groups; 4) fruit and vegetable intake outcomes or antecedents to diet behaviours; 5) Randomised controlled trials. Characteristics of identified studies were coded using the Behaviour Change Techniques Taxonomy v1 and Modes of Delivery, Setting and Source ontologies of the Behaviour Change Intervention Ontology.

Results: Five studies were included, with majority (k=4) reporting significant effects of interventions on improving fruit and vegetable intake. Digital content of interventions was mainly delivered through and website and mobile applications such as Facebook (k=4). Majority of information was delivered visually (k=5). Common Behaviour Change Techniques used were Goal Setting (k=4), Problem Solving (k=3), Instruction on how to perform a Behaviour (k=3), and Prompts and Cues (k=3). Characteristics relating to intervention source and intervention setting were unclear.

Conclusions and implications: This review is the first to use the Behaviour Change Intervention Ontology to code diet interventions for low-socioeconomic families. Digital interventions had positive outcomes; specifically in fruit and vegetable intake in children, with multi-component interventions identified as more effective. Clearer reporting of intervention characteristics in diet interventions is needed, which can be facilitated by the Behaviour Change Intervention Ontology.

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Codesign of a Smartphone App to Support Exercise Training for Women in Midlife in the Workplace

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[1]Centre for Behavioural Science and Applied Psychology, Sheffield Hallam University, Sheffield, UK, [2]Advanced Wellbeing Research Centre, Sheffield Hallam University, Sheffield, UK

Background: Combined effects of work and life stressors and menopause symptoms affect quality of life for women in midlife and can lead to early exit from the workplace. Exercise interventions have potential to address physical and psychological challenges and support women to thrive. The aim of this two-phase study was to codesign a prototype exercise intervention targeted at employed women in midlife.

Methods: Phase one comprised four online codesign workshops involving women in midlife (aged approximately 45-60; n=12). Workshops included interactive activities to stimulate discussion, facilitated by physical activity, behavioural science and user-centred design researchers and underpinned by the behaviour change wheel. Phase two involved development of a prototype smartphone app, tested for two weeks by women in midlife (n=16). Participants provided feedback via an online survey, designed and analysed using the theoretical framework of acceptability.

Results: A prototype smartphone app aimed at employed women in midlife was developed. Phase one suggested demand for a flexible intervention encompassing strength training, aerobic and pelvic floor exercise, tailored to individual needs regarding frequency and intensity. Content encompassed brief, time-efficient workouts requiring no equipment, with clear guidance about how to perform exercises. Features included goal setting, workout scheduling, reminders and progress monitoring. User testing suggested that the concept was acceptable but time and other responsibilities remained barriers to adherence. Users suggested improvements around better functionality and opportunities for social connection with other women in midlife.

Conclusion and implications: Codesign enabled development of a theoretically informed exercise intervention with potential to support women in midlife. Future research is needed to understand minimum dose approaches to exercise given time constraints within this population, and integration of exercise interventions for women in midlife with broader workplace wellbeing and menopause support initiatives.

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Co-developing the Welsh School Health Research Network's (SHRN) school-level digital data dashboard through User Centred Design

Dr Hayley Reed[1], Dr Jeremy Segrott[2], Dr Nick Page[1], Dr Martina Svobodova[2], Brianna Bowen[1], Katy-May Price[1]
[1]The Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer), Cardiff University, [2]Centre for Trials Research, Cardiff University,

Background: Schools have long been viewed as key prevention settings for adolescent health. Increasingly, national and regional data infrastructures are being developed to collect student data through self-report health and wellbeing surveys. Some of these infrastructures provide feedback to schools via Student Health and Wellbeing Reports. This data can inform school health improvement planning and action.

The project aimed to co-develop a digital dashboard for school staff to access their school's data. The presentation will describe the co-development process and present the prototype dashboard.

Methods: The project drew on a user-centred design methodology through repeated cycles of stakeholder involvement to develop and refine the dashboard. Three phases were used with multiple stakeholder groups as follows:

Dashboard examples were shown to school staff, students, and a young person's advisory group to inform the dashboard's functionality and design.

Dashboard mock-ups were created for feedback at SHRN events with school staff, a meeting with public health practitioners, and via email to an advisory group of researchers and public health experts.

A coded dashboard prototype was built, and workshops run with school staff, a young people's advisory group, and public health researchers.

Results: All stakeholders preferred a simple, clear design which would not distract from the data. The functions deemed necessary included the ability to view data through 'trends over time' graphs, and to download data tables and graphs. School staff wanted dashboard pages showing case studies of how schools had used data for health action planning, and a supportive resources page. Manuals in a written and video format were produced to support users to navigate the dashboard.

Conclusion: Future work will include a dashboard pilot with four Welsh secondary schools to further understand the acceptability and feasibility of using the dashboard for health action planning, and the professional learning needs of school staff.

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The Effectiveness of Fully Automated Digital Interventions in Promoting Mental Well-Being in the General Population: Systematic Review and Meta-Analysis

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[1]University of Bath, Bath, United Kingdom

Background: In recent years, the number of fully automated digital mental well-being interventions (such as apps) has increased rapidly. Although many individuals have started using these tools in their daily lives, evidence on their overall effectiveness is currently lacking. This systematic review & meta-analysis reviews the evidence on the effectiveness of fully automated digital interventions in promoting mental well-being in the general population.

Methods: Following the preregistration of the systematic review protocol on PROSPERO, searches were carried out in MEDLINE, Web of Science, Cochrane, PsycINFO, PsycEXTRA, Scopus, and ACM Digital (initial searches in February 2022; updated in October 2022). Two reviewers, blinded to each other's decisions, conducted data selection, extraction, and quality assessment of the included studies. Narrative synthesis and a random-effects model of per-protocol data were adopted.

Results: 19 studies that involved 7243 participants were included. These studies included 24 fully automated digital mental well-being interventions. Compared with no intervention, there was a significant small effect of fully automated digital mental well-being interventions on mental well-being in the general population (standardized mean difference 0.19, 95% CI 0.04-0.33; P=.02). Specifically, mindfulness-, acceptance-, commitment-, and compassion-based interventions significantly promoted mental well-being in the general population (P=.006); insufficient evidence was available for positive psychology and cognitive behavioural therapy–based interventions; and contraindications were found for integrative approaches. Furthermore, high rates of study dropout (average 37%; range 0%-85%) and suboptimal intervention adherence (average 40%) were found.

Conclusions: This study provides a novel contribution to knowledge regarding the effectiveness, strengths, and weaknesses of fully automated digital mental well-being interventions in the general population. These findings can be considered when developing fully automated digital mental well-being tools. Future research should aim to understand when and for whom these interventions are particularly beneficial.

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D.4 CHRONIC CONDITIONS
(Oral Presentations)

Help-seeking behaviour and barriers to help-seeking in the UK public: Findings from the September 2023 Cancer Awareness Measure

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Background: People are much more likely to survive their cancer when it is diagnosed at an early stage. Timely help-seeking for potential signs/symptoms of cancer increases the likelihood of an earlier stage diagnosis. Barriers to help-seeking have changed and their impact fluctuated over the years, including during the COVID-19 pandemic. The current research aims to monitor and track help-seeking behaviours and barriers.

Methods: Cancer Research UK's Cancer Awareness Measure, an online survey of UK public attitudes, awareness and behaviours, collected data from 4,053 adults in September 2023 via YouGov's online panels. Questions were repeated from our previous surveys to monitor changes in attitudes and behaviours. Descriptive results are presented.

Results: In those who experienced a potential cancer symptom (n=2304), 48% did not contact their GP within 6 months of experiencing the symptom. More than half of those who did not contact their GP about a health concern did not contact another health professional (54%) (n=522). However, 8% spoke to a pharmacist, 3% called NHS 111, and 2% went to A&E. Top reasons people put off or delayed seeing/speaking to a medical professional about their health were: difficulty getting an appointment (20%), difficulty getting an appointment at a convenient time (12%), worry about wasting the healthcare professionals time (12%) and not wanting to be seen as someone who makes a fuss (11%) (n=4053).

Conclusions and implications: Consistent with previous waves of the survey a substantial proportion of people did not seek help from their GP or other health professionals for potential cancer symptoms. Top barriers to help-seeking include service and emotional barriers and broadly align with pre-COVID barriers. Public health interventions should encourage timely help-seeking, and barriers to help-seeking, including making it easier to get appointments, must be addressed to improve access to the health system.

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Measuring treatment preferences for preventive treatment of rheumatoid arthritis: a comparison between two preference elicitation techniques

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Background: Treating 'at risk' individuals might prevent rheumatoid arthritis (RA) onset, and this is an active research area. Understanding the preferences of at-risk groups for benefits and risks of preventive treatment can inform efficient, patient-centred treatment development. This study compared two methods, discrete choice experiment (DCE) and probabilistic threshold technique (PTT) to assess preferences for preventive therapies for RA.

Methods: An online survey including DCE and PTT choice tasks with identical risk (mild side-effects; serious side-effects; serious infection) and benefit (reduced chance of RA) attributes was completed by 982 respondents asked to assume a 60% chance of developing RA within 2 years. For the DCE, a panel mixed-logit model was conducted to calculate maximum acceptable risk (MAR) estimates for a 40% reduction in the chance of getting RA. For the PTT, interval regression was used to calculate MAR. Choice task perceived difficulty and preference heterogeneity were also assessed.

Results: MAR confidence intervals of both methods overlapped for serious infection and serious side effects but not for mild side effects (MAR was 32.7 percent-points lower in the PTT) Both tasks were rated as easy to understand and answer, though more respondents rated the DCE choice tasks as easy to understand compared to the number who rated the PTT as easier (7-percentage point difference; $p < 0.05$). Significant preference heterogeneity was for a number of respondent characteristics in the PTT analysis, but not for subgroup analysis of the DCE data.

Conclusions and implications: DCE and PTT MAR estimate confidence intervals overlapped for two out of three risk attributes. More respondents rated DCE as easy to understand. DCE may be better suited for studies aiming to estimate MAR for multiple risk attributes of different severity. However, PTT may be more suited to measuring heterogeneity in MAR for one or more serious adverse events.

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Exploring experiences of behaviour change techniques for medication-related beliefs in psoriatic arthritis: a template and reflexive thematic analysis.

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Background: Medication-related beliefs are strongly associated with adherence across health conditions, however there is limited evidence on the best methods to cultivate helpful beliefs. To investigate this gap, we interviewed patients with psoriatic arthritis (PsA) about their experience of ‘Behaviour Change Techniques’ (BCTs) in relation to their medication-related beliefs.

Methods: Semi-structured interviews were conducted with 25 people living with PsA in the UK. The interview schedule probed three broad categories of commonly used BCTs in effective interventions that changed medication-related beliefs (Information, Social support, and Problem solving). Participants were also asked open questions about what changed their medication-related beliefs. Interview data were analysed using template analysis using the Behaviour Change Technique Taxonomy v1 and reflexive thematic analysis.

Results: Eighteen BCTs were described by quotes from at least one interview as being associated with medication-related belief change. The most frequently coded were ‘Social support (Unspecified)’, ‘Pros and cons’, and ‘Problem solving’. Three inter-dependent themes were identified suggesting that ‘a supportive, informative foundation’ was necessary to enable ‘evaluation of medicine’, and to support ‘practical components’ of medication-related beliefs. There was no ‘one size fits all’ for BCT delivery and tailored approaches were preferred whilst patients negotiated medication necessity and concern beliefs.

Conclusions and implications: Medication-related beliefs are key determinants of adherence and other medication experiences. This research provides valuable insight into patient experiences of Behaviour Change Techniques and medication-related beliefs. Techniques may be deliverable in routine care to address unhelpful beliefs in ways that are acceptable to patients. Medication-related beliefs could be supported by providing communication training to healthcare professionals to foster trusting relationships with patients, amending patient information leaflets, guiding patient coping mechanisms, and integrating health psychologists into psoriatic arthritis management pathways.

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Behaviour change content and implementation of Healthy Living, a national web-based programme to support type 2 diabetes self-management

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Background: Structured education programmes can benefit people with type 2 diabetes, but uptake is low. To widen access, NHS England commissioned a national roll-out of Healthy Living, a web-based structured education programme, based on the HeLP-Diabetes intervention that showed effectiveness in an RCT. Health professionals' role in implementation was limited to signposting and referral to minimise impact on primary care. We aimed to assess the behaviour change content of Healthy Living and describe its implementation.

Methods: Content analysis of 895 Healthy Living webpages, including assessment of behaviour change techniques (BCTs) and self-management tasks. Semi-structured interviews with 9 stakeholders involved in developing Healthy Living and 17 NHS leads responsible for local implementation, analysed separately, using a thematic approach.

Results: We identified 43 BCTs in Healthy Living, including 4 of the 5 BCTs that help self-regulate behaviour (e.g. goal setting): these are particularly important for healthy eating and weight loss, and were integral to the HeLP Diabetes RCT. The Healthy Living website addressed all three areas of self-management needed for managing a long-term condition (medical, emotional, and role). Stakeholder interviews revealed that Healthy Living was reformatted from the original HeLP-Diabetes website to be more structured, have greater accessibility, and meet NHS digital standards.

Interviews with local NHS leads suggested they were generally positive about Healthy Living. However, several factors contributed to implementation being light-touch: Covid-19 pressures on primary care, which led to implementation being non-mandatory; a perceived 'crowded market' of T2DM self-management; not understanding where Healthy Living fit within existing T2DM pathways. Not receiving data on uptake was a barrier to running targeted implementation campaigns.

Conclusions and implications: Healthy Living offered high quality behaviour change and self-management content, with limited impact on health professionals beyond referral, and light touch implementation. NHS England has adapted Healthy Living implementation in response to this research.

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Can smartphones be used to support smoking cessation in first-episode psychosis? A feasibility study of the Smoke Free App

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Background: Smartphone applications (apps) are becoming increasingly popular technologies for supporting smoking cessation across the general population. However, their use in first-episode psychosis (FEP) is understudied. Therefore, this study aims to examine the feasibility and acceptability of using the Smoke Free app in this population

Methods: This mixed methods feasibility study. Thirty-one participants (aged 18-35 and currently being treated by Early Intervention Services in NHS England) consented and 24 were enrolled in the intervention. At enrolment, participants installed the app and were asked to complete a baseline assessment of smoking attitudes, health behaviours, and mental well-being. Participants' use of the Smoke Free app was objectively recorded for 6 weeks, at which point they were followed up to complete a post-intervention assessment. A subsample of participants participated in a qualitative interview, which captured their experiences of using the app at 6 weeks.

Results: Data will be presented regarding the acceptability and feasibility through data gathered on eligibility, referral, and recruitment rates for the study, quantitative levels of user engagement with the smoking cessation app, and qualitative feedback on satisfaction with using an app for smoking cessation. The impact on psychological well-being and quality of life following the intervention will be reported.

Conclusions: This will be the first study to assess the feasibility of using smartphone apps to support smoking cessation in NHS Early Intervention Services. The results will be used to inform further research for establishing novel clinical interventions for promoting smoking cessation among young people with FEP.

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D.5 CANCER

(Oral Presentations)

Attitudes to self-sampling as a choice in future cervical screening

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Background: Around the world, primary HPV testing in cervical cancer screening now offers the potential for self-collection of samples. The NHS cervical screening programme may soon offer HPV self-sampling as an alternative to traditional clinician screening, with women offered the opportunity to choose which they prefer. We embedded questions assessing attitudes towards a choice within HPValidate, a primary care-based study of women who carried out a self-test alongside their usual cervical screen.

Methods: A sample of 2320 women aged 25-65 years participating in HPValidate completed the survey at their GP practice after completing their self-sample (48% response rate). We asked how people felt about being offered a choice. Attitudes to a choice included components of the Theoretical Framework of Acceptability (TFA). We explored age, education, ethnicity and screening experience as predictors of attitudes towards the offer of a choice.

Results: The majority felt they would like to have a choice between self-testing and clinician testing (85%) and thought this would improve screening for them (72%), but 22% felt it would be difficult to choose, 15% would be worried about making a choice and nearly half said they would prefer a recommendation (48%). Compared with women with degree-level education, those with fewer educational qualifications were more likely to say they would worry about having a choice and were more likely to say they would not want a choice ($p<.001$). Women having their first screen were more likely to feel the choice would be difficult ($p<.05$) and to prefer a recommendation ($p<.01$) than women who had been for 3+ screens before.

Conclusion: Self-testing is likely to be popular, but the offer of a choice has the potential to cause worry. Supporting people to make a choice will be important, particularly for women with lower levels of education and less screening experience.

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"It's an afterthought, it's not a priority": a qualitative exploration of support and information regarding lifestyle behaviour changes following breast cancer diagnosis and treatment

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Background: Lifestyle behaviour modification can significantly reduce risk of breast cancer recurrence, yet few studies have explored women's experiences of making changes to alcohol consumption, diet or exercise following diagnosis and treatment. This study aimed to explore women's experiences of support and information on lifestyle behaviour changes after a diagnosis of breast cancer.

Methods: Qualitative interviews were conducted as part of a larger mixed-methods study. Participants were recruited through an online survey exploring lifestyle behaviours following diagnosis, advertised via social media and support groups/charities. A purposive sample were then invited for interview (including women with higher alcohol consumption). A sample of 140 people completed the survey, and 21 women were interviewed. Qualitative participants were aged between 40-69 years, UK residents, and had completed primary breast cancer treatment within 10 years. Interviews were analysed using Thematic Analysis.

Results: Interviews highlighted that a diagnosis was often the impetus for changing exercise or dietary behaviours, yet less emphasis was placed on reducing alcohol consumption as a long-term change. Women reported that lifestyle advice was either not provided, not individually tailored, or that they were discouraged from making lifestyle changes during treatment. Lifestyle advice from health professionals would have been welcomed early on and where it was offered, women found this empowering, with a few who had received this valuing "a strong call to arms" to make changes. Key facilitators to behavioural change included peer support and stress management. Participants provided suggestions regarding future lifestyle interventions.

Conclusions and Implications: Individuals with breast cancer would value personalised, timely and empowering lifestyle related support and information. Future interventions are needed for both patients and health professionals to help increase awareness of the benefits of lifestyle changes post breast cancer, particularly regarding alcohol consumption. This is needed to enable informed decision-making regarding making lasting lifestyle changes.

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A mixed-methods systematic review of interventions to improve access to cancer screening for people with learning disabilities: Effectiveness, feasibility, and acceptability

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Background: Cancer screening programmes fail to sufficiently engage People With Learning Disabilities (PWLD), leading to persistent inequalities in uptake, early diagnosis, and treatment outcomes. There is currently insufficient evidence on access to cancer screening for PWLD. This systematic review examined the evidence base for a) interventions that have increased access to cancer screening for PWLD and b) people's experiences of participating in or delivering such interventions.

Methods: We searched 12 databases, including 1 grey literature and 1 dissertation database. References lists and subject experts were also consulted for relevant reports. Two reviewers independently screened 7658 records against pre-defined eligibility criteria. Included reports were quality assessed. We adopted a convergent segregated mixed-methods approach, where quantitative effectiveness evidence, and qualitative feasibility and acceptability evidence, were synthesised separately and then integrated. A detailed protocol is registered in PROSPERO (CRD42022364790).

Results: Thirty-one reports met the eligibility criteria, including 20 grey literature and 11 journal publications. Interventions covered bowel, breast, and/or cervical screening. Evaluation designs and quality varied widely which complicated comparisons of effectiveness. Overall, interventions combining accessible information with additional activities—for example, collaboration of primary and secondary healthcare services to identify PWLD eligible for screening, staff training to explain cancer screening to PWLD and to assess capacity to consent—were most effective. Multi-component interventions did not assess the effectiveness of individual components. Acceptability and feasibility evidence suggested that accessible information is valued by PWLD and can be produced at low cost, but a challenge remains in identifying PWLD from health records to provide this information.

Conclusions and implications: The greater risk of bias in grey literature complicates objective identification of effective screening interventions. Several approaches have the potential to be developed collaboratively with PWLD, their supporters, and healthcare providers into acceptable and feasible interventions. Their effectiveness should be tested in rigorously designed evaluations.

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Advice after urgent suspected cancer referral when cancer is not found: survey of patients' preferences and perceived acceptability.

Dr Ruth Evans[1,2], Harriet Watson[3], Prof Jo Waller[1,2], Dr Brian D Nicholson[4], Dr Thomas Round[2,5], Carolynn Gildea[5], Debs Smith[6], Prof Suzanne Scott[1,2]
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Background: No standardised approach exists to provide advice after urgent suspected cancer (USC) referral when cancer is not found. This study aimed to assess preferences and acceptability of receiving advice after USC referral related to: 1) managing ongoing symptoms, 2) responding to early symptoms of other cancers, 3) cancer screening, 4) reducing the risk of future cancer.

Methods: 2,541 patients from two NHS Trusts were mailed a survey 1-3 months after having no cancer found following urgent suspected gastrointestinal or head and neck cancer referral. Participants were asked about: willingness to receive advice; prospective acceptability; preferences related to mode, timing and who should provide advice; and previous advice receipt. Cochran Q and McNemar tests compared differences in willingness to receive each advice type. Friedman and Wilcoxon tests assessed differences in prospective acceptability. Linear regression analyses (univariate and multivariate) assessed associations between prospective acceptability and socio-demographic factors, USC pathway, health and health behaviour.

Results: 406 patients responded (16.0%) with 397 in the final analyses. Few participants had previously received advice, yet most were willing to. Willingness varied by type of advice: fewer were willing to receive advice about early symptoms of other cancers (88.9%) than advice related to ongoing symptoms (94.3%); X2=12.410, p<.001. Acceptability was relatively high for all advice types. Reducing the risk of future cancer advice was seen as more acceptable. Acceptability was lower in those from ethnic minority groups, and with lower levels of educational attainment. Most participants preferred to receive advice from a doctor; with results or soon after; either face to face or via the telephone.

Conclusion and implications: There is a potential unmet need for advice after USC referral when no cancer is found. Equitable intervention design should focus on increasing acceptability for people from ethnic minority groups and those with lower levels of education.

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OPTIMISTIC optimising the care and support of people with inoperable pancreatic cancer and their family carers - information needs

Hilary Brown[1]
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Background: This research aims to highlight the information needs of people diagnosed with inoperable pancreatic cancer and their family carers, and their subsequent knowledge seeking behaviours. It is nested in a study exploring the full range of supportive care needs of this cohort.

Methods: This is a qualitative study involving 13 people with inoperable pancreatic cancer and 12 family carers, recruited via five NHS sites, Pancreatic Cancer UK’s research involvement network and social media. Thirty-six semi-structured interviews were conducted by phone or Zoom between May 2022 and December 2023. A number of these participants were interviewed more than once to explore how their supportive care needs changed over time. The interview data were analysed using the Framework Approach (Ritchie and Lewis, 2003).

Results: While people’s appetite for information varied considerably, with some patients and their family carers doing lots of research and others reluctant to do any, nearly all of the participants interviewed expressed unmet information needs at some point in their cancer trajectory. Several participants spoke about feeling in limbo after diagnosis and did not know who to contact for advice and support. Some participants wanted more information on what to expect at different stages of the cancer trajectory such as what to expect from chemotherapy and what to expect as they (their loved ones) neared end of life. Navigating the health and care system in general and knowing who to contact, when, and what for, caused some anxieties and confusion for participants.

Conclusion: The findings suggest that the health and care system is not as effective as it should be for supporting the information needs of people with inoperable pancreatic cancer, and their family carers.

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Parallel Session E

E.1 SYMPOSIUM: Co-designing interventions with underserved populations: Incorporating the voices of the public within intervention development using Person-Based Approaches

Co-designing interventions with underserved populations: Incorporating the voices of the public within intervention development using Person-Based Approaches

Convenor: Dr Mary Steele, University of Southampton
Discussant: Dr Max Western, University of Bath

Purpose: To explore applications of two co-design approaches to intervention development; the Person-Based Approach (PBA) and the Agile Co-production and Evaluation (ACE) framework, and methods of including diverse Patient and Public Involvement (PPI) within these to facilitate input from underserved groups and ensure that the interventions are grounded in an in-depth understanding of the user's context.

Objective: 1) To illustrate how PPI can be incorporated within the PBA and ACE framework to further strengthen these approaches to intervention development 2) To highlight successes and challenges faced during the co-design of interventions 3) To facilitate discussion about future applications and developments for co-design approaches.

Rationale: Co-design approaches are critical for ensuring that the views and perspectives of the target audience are included and that issues with user engagement are resolved before intervention evaluation and implementation. They should be used flexibly and in combination with theory- and evidence- based approaches. By evaluating how co-design approaches have been combined with PPI and implemented within underserved populations, the process can be refined for future research.

Summary: Four complementary presentations will illustrate applications of the PBA and ACE framework combined with PPI. These will be followed by a facilitated discussion with the presenters, and delegates. Presentation 1) Input from a young persons' advisory group for informing the development of an online acne self-management intervention. Presentation 2) Incorporating the views of under-served communities into the development of an intervention for blood-pressure self-management post-partum. Presentation 3) Multiple methods of enabling young people to co-design an app to encourage healthy sleep habits. Presentation 4) Examples of applications of the ACE framework for co-producing interventions.

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Patient and Public Involvement in the development of an online intervention for young people with acne: novel approaches to reach underserved groups

Dr Mary Steele[1], Dr Rosie Essery[1], Dr Stephanie Easton[1], Sophie Dove[2], Kate Heneghan-Sykes[2], Irene Soulsby[2], Dr Sebastien Pollet[1], Rebekah LeFeuvre[1], Prof Lucy Yardley[1,3], Prof Nick Francis[1]
Prof Paul Little[1]
[1]University of Southampton, [2]Public Contributor, [3]University of Bristol

Background: Acne is very common and can substantially affect quality of life. Developed using the Person-Based Approach, Acne Care Online is a digital intervention for young people to improve acne-related outcomes through effective treatment-seeking and adherence behaviour.
Patient and Public Involvement (PPI) is vital in ensuring that the range of experiences and perceptions of target users are included. We involved an advisory group of young people with acne to co-design the intervention alongside other key stakeholders.

Methods: To form an advisory group, young people were recruited through social media advertising and school engagement. We focused on areas of high ethnic and LGBTQIA+ diversity.
The group received email invitations to optional activities such as providing feedback on outcome measures or discussion groups as they became available.

Results: Social media advertising was particularly successful, and attracted diverse interest from young people with acne. The group includes 24 people (13 white, 18 female, 17 aged under 18 years, 7 LGBTQIA+).

The group contributed to decisions about study design and intervention development. For example, by giving detailed feedback on possible outcome measures, or providing insight into which issues relating to acne are important to young people.

Challenges included; automated algorithms affecting social media advertising, members joining the group using false details, members providing minimal detail in feedback forms, and lower engagement from younger or male members. This was mitigated by seeking in-person feedback from established groups, offering flexibility in how to contribute and by exploring issues in depth with more engaged members.

Conclusions and implications: The advisory group provided input from people who may not have the confidence to speak in an academic setting or be willing or able to commit to regular or long-term involvement. Reporting difficulties encountered can help inform strategies for future involvement of young people in developing interventions.

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Using the person-based approach for PPI co-production of an inclusive intervention for post-partum blood pressure self-management

Dr Cynthia Ochieng[1], Marcus Green[2], Dr Katherine Tucker[3], Prof Lisa Hinton[3], Prof Richard McManus[3], Prof Lucy Yardley[3,4]
[1]University of Bristol, [2]Action on Pre-eclampsia, [3]University of Oxford, [4]University of Southampton

Background: Hypertensive disorders of pregnancy (HDP) affect approximately 10% of women during pregnancy and can lead to morbidity and mortality for mother and foetus. Improved post-natal HDP management results in better longer-term blood pressure (BP) and improved cardiac remodelling. This project aimed to develop an intervention to improve blood pressure self-management after pregnancy.

Methods: Using the Person-Based Approach (PBA), aligned with Bandura's Social Cognitive Theory for behaviour change, a digital intervention was co-produced with members of a patient and public involvement panel (PPI), clinical stakeholders and research collaborators. PPI comprised those with lived experiences of HDP recruited from local communities and charities. To promote diversity, PPI recruitment targeted groups with worse maternal outcomes. This included women from under-resourced areas and minoritised ethnic groups, with different levels of education and physical impairment. Between January-November 2023 nine meetings were held. At each meeting the context and format of the intervention, its wording and associated imagery were discussed. The PBA approach involved the formulation of a logic model, population of an intervention planning table and development of guiding principles. The intervention was subsequently optimised using think-aloud interviews and documented in a table of changes.

Results: Co-production with PPI resulted in the use of infographics and accessible, motivating language to design an application (app) and its accompanying leaflet. The PPI co-production highlighted the need to show the importance of BP management, safety of medication for breast-feeding and demonstrate the intervention would be supported by clinicians. The group also stated that patients needed to be given BP monitors and trained in the intervention.

Conclusion: Using co-production with under-served populations, this study developed an inclusive app to be used by a diverse group of women.

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Inclusivity in insomnia: Co-creating Sleep Solved, an intervention to encourage healthy sleep habits using the Person-Based Approach (PBA)

Dr Sarah Bennett[1], Milly Johnston[1], Jewel Koh[1], Paula Kuberka[1], Prof Robert Meadows[2], Georgia Treneman-Evans[1], Prof Lucy Yardley[1,2],
[1]The University of Bristol, [2]The University of Surrey

Background: Insomnia is a frequent problem for young people aged 14-18. Poor sleep can have a significant impact on wellbeing, including poorer health-related quality of life, low mood, and depression.
This new research sought to involve young people in the co-creation of a new app, particularly those from under-served communities. The Sleep Solved app uses science-based advice to improve sleep-related behaviours and wellbeing and was developed using the Person-Based Approach.

Method: Young people (14-18 years) were recruited from across the UK to contribute to PPI activities. In partnership with our Peer Researcher, we used a multitude of methods to engage with PPI contributors, including online workshops, Qualtrics surveys, think-aloud interviews, focus groups and app beta testing.

Results: App development was a shared process. From the app name, design, navigation, and the science underpinning our sleep recommendations, to the intervention design itself and prototype app testing, PPI contributors (n=85) provided feedback on every element of Sleep Solved.
Many praised the behaviour change messages included in the app as novel, and that the sleep advice was not something that they had heard before. Thanks to contributor feedback, a new gamified rewards system was designed, where users collect 'stars' for successfully attaining sleep behaviours. Relatable stories about how Sleep Solved had helped them were recorded. A variety of ages, ethnicities and regional accents were represented.

Conclusions and implications: PPI contributors gave valuable insight into the development of the app. Care was taken to make the app engaging, easy to use and understand, with short sentences and simple, informal language. Through addressing support for sleep and wellbeing in young people, the Sleep Solved app can provide accessible support and guidance from the familiarity of the users own smartphone, without the need for long waiting lists.

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Application of the Agile Co-Production and Evaluation Framework to Co-produce Interventions with Seldom Heard Communities

Lucy Yardley[1,2], **Sarah Denford**[1], Atiya Kamal[3], Tom May[1], Jo M. Kesten[1], Clare E French[1], Dale Weston[4], G. James Rubin[5], Jeremy Horwood[1], Mathew Hickman[1], Richard Amlôt[4], Isabel Oliver[4]
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Background: An important lesson identified during the COVID-19 pandemic is that there is a need to extend existing best practice for the rapid development of behaviour change interventions for public health. In particular, we need to integrate state-of-the-art methods of rapidly co-producing behaviour change interventions and messaging to support all population groups to protect themselves and their communities with methods of rapidly evaluating co-produced interventions to determine which are acceptable and effective.

Methods: The Agile Co-production and Evaluation (ACE) framework is intended to provide a focus for investigating new ways of rapidly developing effective interventions and messaging by combining co-production methods with large-scale testing and/or real-world evaluation. This talk would briefly review some of the participatory, qualitative and quantitative methods that could potentially be combined to achieve this goal.

Results: The ACE framework has been used to support the rapid development of public health interventions with individuals from a range of underserved communities. Examples of applications of the framework will be presented and will include the co-production of interventions with young people from deprived backgrounds, people experiencing homelessness, and people who use drugs and alcohol.

Conclusion and implications: The ACE framework now needs to be validated with a variety of populations and contexts. We therefore propose a research agenda to further develop, refine and validate packages of methods in a variety of contexts to determine which combinations are feasible, cost-effective and achieve the goal of improving health and reducing health inequalities.

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E.2 PHYSICAL ACTIVITY

(Oral Presentations)

Developing and testing the feasibility of a theory-based brief counseling intervention to promote physical activity in breast cancer survivors enrolled in the PAC-WOMAN trial

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Background: Brief counseling interventions are recognized by WHO as cost-effective to help people overcome behavioral risk factors, such as lack of physical activity (PA). Most cancer survivors fail to meet recommended PA levels. Interventions promoting PA, grounded in theory, such as Self-Determination Theory (SDT), and utilizing evidence-based behavior change techniques (BCTs) have proven effective in breast cancer survivors, although limited. The PAC-WOMAN trial is a 3-arm randomized controlled trial aimed at promoting short- and long-term PA adherence, reducing sedentary behavior and quality of life in breast cancer survivors. This study describes the development of the brief counseling theory-based motivational intervention in the PAC-WOMAN trial, assessing its feasibility and acceptability.

Methods: Guided by SDT theoretical tenets, a systematic search of motivational interventions for people with cancer and other chronic diseases was conducted. Relevant components and activities from each intervention were identified and retrieved, helping to shape the main components and motivational BCTs to be used in each of the 8 bi-monthly counseling sessions of the PAC-WOMAN brief counseling intervention. An implementation manual for facilitators and a booklet of self-regulation resources for participants were developed. A feasibility study, with 12 breast cancer survivors, was implemented and focus groups for feedback on participants' experiences were conducted.

Results: Intervention attrition rate was 25%. Participants' compliance was acceptable (9 participants completed half of the sessions). Focus groups suggested that weekly sessions would increase attendance and a session on safely exercising at home was identified as key in improving PA levels.

Conclusions: Feasibility-testing suggests the intervention was well accepted by participants and feasible, though it could benefit from adjustments in format to increase compliance. PAC-WOMAN trial implementation will help understand effects of this intervention on motivational, self-regulatory and health outcomes of breast cancer survivors.

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Evaluating the impact of a workplace physical activity programme on participant physical fitness, mental wellbeing and cognitive health

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Background: The impact of sedentary behaviour on health has led to the development of programmes designed to increase physical activity within workplaces, where sedentary behaviour is often prevalent. Our previous research had found a positive associative relationship between participation in a Scotland-wide workplace walking programme (Step Count Challenge (SCC)) and participants' physical fitness and mental wellbeing. In this study, we compared the mental wellbeing, physical fitness, and cognitive functioning outcomes of SCC participants compared to those who did not participate.

Methods: A student sample of participants (n=38) were split into two groups – the experimental group participated in a 4-week SCC, and the control group did not. Pre- and Post-SCC assessments were Two-Minute Step Test to measure Physical Fitness, Short Warwick-Edinburgh Mental Wellbeing Scale for mental wellbeing, and a tailored Cambridge Neuropsychological Test Automated Battery for cognitive health (Memory & Attention).

Results: There was a significant group x time interaction for physical fitness ($F(1,30) = 6.226$, $p = 0.018$, $\eta^2 = 0.172$), such that the SCC group significantly improved over time ($p = 0.042$, $\eta^2 = 0.131$). There were no significant differences found in terms of mental wellbeing or cognitive functioning.

Conclusions & Implications: Following the findings of our previous studies, we were once again able to show a significant improvement in physical fitness across the duration of participation in the SCC, with these greater than the control group of those who did not participate. These results are therefore supportive for the promotion of future workplace walking programmes, and the potential positive effects of this for employee physical health.

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Co-development of the 'Move More' Toolkit: A Theoretically Informed Resource to Support Physical Activity Participation and Promotion within Secure Psychiatric Care

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Introduction: Physical activity is effective in improving the physical and mental health of individuals within secure psychiatric care. However, psychiatric inpatients remain a seldomly heard population in research involving their care. This project reports on the co-development of a theoretically informed physical activity toolkit to promote physical activity within an inpatient setting.

Methods: A behavioural analysis was conducted with 10 patients and 9 staff within a secure psychiatric hospital. Qualitative interviews and group discussions using the COM-B model were used to identify barriers to physical activity. Based on identified barriers, participant led solutions and suggestions for toolkit content were identified. The academic team selected intervention functions and behaviour change techniques from the behaviour change wheel (BCW) which were subsequently aligned with toolkit content. A final toolkit titled 'the move more' toolkit was iteratively developed and produced.

Results: Applying the COM-B model to interview transcripts, we identified six key subthemes reflecting the capability, opportunity and motivation components of the model. Using the BCW, we selected three intervention functions (education, training and enablement) and four behaviour change techniques (environmental restructuring, instructions on performing behaviour, social support and demonstration of behaviour). Incorporating these components, the final toolkit consisted of four sections: education on the benefits of physical activity engagement, ways to prepare for physical activity (e.g., selecting appropriate clothing), examples of activities that patients could engage in within a ward environment, and self-monitoring tools including a physical activity planner.

Conclusion and Implications: A multi-disciplinary approach enabled a theoretically informed physical activity toolkit to be pragmatically produced. This approach presents a key contribution to literature by demonstrating how principles of co-production can be utilized with the BCW in a complex, often hard to reach population. Such an approach may represent an effective method to develop targeted and effective health interventions within psychiatric populations.

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Co-designing intervention ideas to promote physical activity and social connectedness for healthy ageing: a participatory systems-based approach

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Background: Physical activity (PA) and social connectedness (SC) in mid-to-later life are key to healthy ageing. Interventions addressing both have been identified as a priority. However, evidence for effective interventions at scale is limited, particularly among people of lower socioeconomic status. Addressing these issues, we adopted a participatory systems-based approach, emphasising capacity building, relationships, engagement and embedded action, to visualise the PA-SC-healthy ageing system, and co-design interventions that maximise synergy between PA and SC.

Methods: Four participatory workshops were held in two areas of Scotland with community members aged 55-75, and organisational stakeholders, initially identified through Critical Systems Heuristics. The series developed iteratively based on findings from previous workshops. In workshops 1-2, we co-created causal loop diagrams (CLDs), illustrating key factors influencing PA and SC. Through network and qualitative analyses, priority leverage points were identified. In workshops 3-4, participants further defined these key priorities, and co-designed complementary intervention ideas. Data were analysed using a thematic approach, informed by relevant theory.

Results: The CLD contained 77 factors and 269 connections, highlighting the complexity of promoting PA and SC together. Participants identified 22 priority factors, which were consolidated into four overarching priority intervention areas: i) communications to support engagement; ii) improving transport; iii) supporting retirement; and iv) building social networks and community. We then co-designed corresponding intervention ideas: i) a new community organisational network; ii) bolstering lobbying for public transport changes, alongside a community transport scheme to connect older adults with PA and SC opportunities; iii) a 'retirement fair' to connect people to opportunities and support; and iv) a community hub with an integrated buddy scheme to facilitate engagement.

Conclusions and implications: Community-based participatory systems methods effectively engage communities, utilising community knowledge and expertise to co-design actionable intervention ideas. This approach creates a strong foundation for focused intervention and programme theory development.

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A mixed methods exploration of the influence of assuming a caregiving role on physical activity and social connectedness

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Background: Enabling physical activity (PA) and social connectedness (SC) is advantageous for fostering healthy ageing. Assuming a caregiving role for a loved one may pose challenges for mid-to-older age adults in engaging with PA and SC, due to shifting priorities and responsibilities. Gaining insights into how taking on a caregiving role influences PA, SC, and feelings of loneliness could reveal potential intervention opportunities.

Aim: To explore how becoming a carer impacted PA, SC, and loneliness in adults aged 55-75 years.

Methods: This study used a mixed methods design. 10,320 survey responses were analysed from the English Longitudinal Study of Ageing to compare changes in PA levels, loneliness, and social isolation in those who took on caring roles versus those who did not using a difference-in-difference approach. Semi-structured interviews were completed with 8 adults who became carers in the last 2-5 years. Interviews were analysed using a thematic framework approach. Findings were aligned using the pillar integration method.

Results: Becoming a carer was associated with lower odds of reduced PA, particularly in younger age groups and those caring for a parent, compared to controls. Carers had higher odds of feeling lonely than controls. This was found to be more prominent in those caring for a spouse. No associations were found between caring and social isolation. The qualitative data found that carers felt they were busier than before they had a caring role which they linked to more PA and reduced feelings of loneliness. Key themes identified were changing priorities and responsibilities, relationship dynamics, and the utilisation of support.

Conclusions and implications: Adopting a caring role appears to be beneficial for PA but a hindrance to social connection. The changing priorities and requirements of the caring role may account for these changes, as well as relationship changes and levels of support.

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E.3 PSYCHOLOGICAL WELLBEING

(Oral Presentations)

Hypervigilance for emotions can influence posttraumatic quality of life

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Background: Hypervigilance, a state of sustained hyperarousal and alertness for potential threat, is a prevalent symptom of posttraumatic stress and is associated with a range of cognitive and mental health impairments. Questionnaire measures of hypervigilance tend to focus on behavioural aspects, such as environment scanning. The present research tests a newly developed measure of hypervigilance for emotional states, the Emotional Vigilance and Awareness Questionnaire (EVAQ). The EVAQ comprises three subscales reflecting purposeful emotion monitoring (EM), hyperawareness of emotional states (EA) and of changes in those states (EC). This preliminary study examined the role of emotional hypervigilance on posttraumatic quality of life (QofL) in a non-clinical public sample. We predicted that EVAC scores would explain variance in QofL in addition to that explained by posttraumatic symptoms and experiential avoidance, another symptom of posttraumatic stress which can be linked to behavioural hypervigilance.

Methods: 162 participants (125 female; Mean age = 36.54) recruited through Prolific.ac.uk, completed an online survey comprising the EVAQ, the Brief Experiential Avoidance Questionnaire, and the PTSD Scale-Self Report for DSM-5, followed by a single question measure of how much reported posttraumatic symptoms reduced QofL (rated on a scale from 1 = not at all, to 6 = a great deal).

Results: 63% of participants reported at least one traumatic experience. Regression analysis showed a significant effect of EC scores on QofL, $p < .001$, 95% CI [0.11, 0.53] controlling for posttraumatic symptoms and experiential avoidance. EC and experimental avoidance significantly mediated the association between symptoms and QofL, $\beta = .02$, 95% CI [.001, 04].

Conclusions and implications: Results suggest that hypervigilance of emotional states, particularly to changes in emotions, contributes negatively to posttraumatic QofL. EC and experiential avoidance together strengthen the effects of symptoms on QofL. This suggests a new target for intervention with people experiencing posttraumatic stress.

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Growing around grief: The lived experience of parentally-bereaved young people in the UK

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Background: More than 100 children living in the UK experience the death of their parent before the age of 18 every day. Parentally bereaved young people (PBYP) face considerable hardships coming to terms with this loss, and it is associated with detrimental health and wellbeing outcomes across the lifespan. The aim of this exploratory study was to exam the lived experience of PBYP in the UK to understand their needs and identify how they might be supported after loss.

Methods: A qualitative semi-structured interview study design was used. Nine semi-structured interviews were conducted with young people aged 18-25 in the UK (women= 7; men= 2) (mean age= 23 years; mean age at parent's death= 16.7). Thematic analysis was carried out using NVivo 12 software, and the data were analysed inductively. The Dual Process Model (DPM) was then applied as an exploratory lens through which to interpret the data further.

Results: Four themes were identified: 1) Grief journey, 2) Accumulation of stressors, 3) Valuable and unhelpful support aspects, 4) Employed coping mechanisms. Participants discussed grief-associated emotions, secondary stressors they experienced in relation to the surviving parent, adult responsibilities, and bereavement practicalities. Additionally, they discussed the ways in which educational establishments and peers hinder and facilitate support, and the engagement- and avoidance-oriented coping strategies employed by PBYP.

Conclusion and Implications: This study identified the ways in which parental loss shaped participants' everyday lives, their endeavours through such adversities, and how they learnt to accommodate and adapt to their new way of life. It highlights areas where health professionals, educational practitioners, and others who work with PBYP require greater knowledge and understanding of the meaning of being parentally-bereaved. Recommendations include implementing bereavement protocols, education for peers and educational establishments, and bereavement support interventions.

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What influences young people's attendance and engagement with mental health services – learning from the literature, clinicians and young people themselves.

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Background: Some young people struggle to attend appointments or engage with mental health services, meaning they may not receive support, and those who do engage can experience barriers to continued therapeutic intervention. Reasons for non-engagement vary, and have been categorised into structural, service and patient factors. Yet, qualitative data from young people themselves regarding attendance and engagement is limited. This study investigated what influences engagement from the perspectives of young people, and from the clinicians who support them.

Method: Semi-structured interviews were conducted with 10 Child and Adolescent Mental Health Services (CAMHS) clinicians and five young people receiving treatment at CAMHS. Interviews were transcribed, and MaxQDA (qualitative analysis software) used to undertake Thematic Analysis. This began with a 'deductive' coding frame derived from the literature, and subsequently added to from interview data, resulting in a deductive and inductive model. The analysis also reflected on what influences clinicians' and young people's perspectives, such as levels of professional experience, age, gender, and deprivation. Previous quantitative analysis of administrative data identified correlations between non-attendance and living in areas of high deprivation and with young people's age.

Results: Early findings show a much broader range of factors than identified in the literature. Further to initial theory-driven factors, such as living in a more deprived area, empowering young people's decision making, family support and clinician commitment behaviours; data-driven factors include previous experience and understanding of CAMHS, play, readiness for the process, and insight into mental health.

Conclusions: Inductive and deductive thematic analysis approaches were combined to generate a model incorporating a priori reasons for engagement from the literature and those derived from interviews with clinicians and young people. This provides insights into mechanisms from which to develop interventions to improve access and engagement with a range of health services, not just CAMHS.

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E.4 CANCER

(Oral Presentations)

Exploring Barriers and Facilitators in Breast Cancer Screening Uptake Among Saudi Women: A Scoping Review

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The global escalation in breast cancer (BC) diagnoses, coupled with its often fatal consequences, underscores a pressing international health challenge. Enhanced and timely breast cancer screening has the potential to not only improve health outcomes but also alleviate healthcare costs. Regrettably, the utilization of complimentary breast cancer screening services among Saudi women remains significantly low, primarily due to intricate religious, social, and cultural factors. In response to this critical issue in the Kingdom of Saudi Arabia (KSA), this scoping review aims to present a comprehensive perspective on the facilitators and barriers influencing breast cancer screening behavior over the past two decades. Following a meticulous scoping review methodology guided by Arksey and O'Malley, along with adherence to The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension, an exhaustive literature search was conducted across five influential databases: PubMed, CINAHL, PsycINFO, Web of Science, and the Saudi Digital Library (SDL). The inclusion criteria focused on original research studies conducted in Arabic and English within the community setting in KSA. Adopting the Integrated Screening Action Model, this scoping review delineates the stages of screening behavior, examining the nuanced impact of individual interactions, opportunities, motivations, and identified barriers and facilitators. A total of 41 pertinent studies were included in the review. Key barriers to breast cancer screening encompassed perceptions influenced by beliefs, myths, and fears, coupled with deficiencies in knowledge, shyness, and multifactorial issues related to misconceptions. Crucially, our scoping review underscores the urgent need for a co-design strategy rooted in faith and acceptance, serving as a vital intervention to heighten awareness and elevate breast cancer screening levels within the unique context of Islamic culture. These findings contribute valuable insights for targeted interventions and policies, making a significant stride toward addressing this critical global public health concern.

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Acceptability of a medication adherence intervention for breast cancer: A mixed-methods process evaluation guided by the theoretical framework of acceptability

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Background: Adjuvant endocrine therapy (AET) reduces mortality in early-stage breast cancer, but adherence is low. We developed a multicomponent intervention to support AET adherence including: text messages; information leaflet; acceptance and commitment therapy (ACT); self-management side-effect website. Guided by the multiphase optimisation strategy, the intervention components were tested in a pilot optimisation trial. This mixed-methods process evaluation investigated intervention component acceptability.

Methods: The pilot trial used a 2^4-1 fractional factorial design. Fifty-two women with breast cancer were randomised to one of eight conditions comprising unique combinations of the four components. At four-months, an acceptability questionnaire was administered to all participants, and interviews were conducted with 20 women, guided by four domains of the theoretical framework of acceptability; affective attitude, burden, perceived effectiveness, coherence. Questionnaire data was summarised, and interview data was analysed using rapid qualitative analysis. Quantitative and qualitative findings were triangulated.

Results: Acceptability scores were high for all components (median = 14-15/20, range = 11-20). There was agreement between qualitative and quantitative data when triangulated. Most participants ‘liked’ or ‘strongly liked’ all components (affective attitude), and reported they were generally low burden. However, 31.6% of participants reported ACT was ‘a lot of effort’ or ‘a huge effort’, and recommended changing ACT sessions from weekly to fortnightly. Perceived effectiveness was mixed, with 35.0% (text messages) to 52.6% (ACT) of participants ‘agreeing’ or ‘strongly agreeing’ that each component would improve adherence. Coherence was highest for text messages, with 65.0% ‘agreeing’ or ‘strongly agreeing’ it was clear how the messages would help adherence. Interview data provided suggestions to improve acceptability.

Conclusions and implications: All components were considered acceptable and will be refined prior to a full trial. Mixed-methods and triangulation, guided by the theoretical framework of acceptability, were useful methodological approaches, and could be applied in other process evaluations.

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How do women experience a change in their clinically-derived breast cancer risk estimates: views from a UK Family History Risk and Prevention Clinic

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Background: Introducing breast density and polygenic risk scores into breast cancer prediction models along standard factors such as family history results in greater precision. This can involve alterations to previously communicated risk estimates and preventative management. This study is the first to explore, across any disease type, how changes in risk are viewed, experienced and understood.

Methods: Semi-structured telephone interviews were conducted with twenty-two women who were notified of a change to their breast cancer risk via a UK Family History Risk and Prevention Clinic. Eleven experienced an increase and eleven a decrease in risk. Data were analysed using reflexive thematic analysis.

Results: Four themes were generated: (i) possibility of change in risk never considered, illustrating women’s beliefs that their risk estimates would remain unaltered due to their family history, hence receiving a lower risk was unexpected but a relief, (ii) a trusted source influences adapted risk appraisals, highlighting the clinic’s reputation as an information source, as well as personal connections with the service positively effecting risk appraisals, (iii) perceived value of new risk factor knowledge, where women contemplated the usefulness of knowing their breast density and polygenic risk scores, with a ‘gist’ understanding of this information sufficient for updating personal risk appraisals, (iv) heart versus head: changes in preventative management, where the implications of an updated risk estimate was processed, with some women experiencing emotional conflict over their ineligibility for annual screening.

Conclusions and implications: Women reacted positively to their updated breast cancer risk estimates and trusted the information provided, even when a change to preventative management was advised. Risk appraisals are notoriously resistant to change, however providing ‘gist’ information together with more in-depth content should assist women in forming more accurate risk appraisals. Communicating changes in preventative management should also be carefully managed to address concerns and misunderstandings.

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Using the PAPM model to understand cervical screening non-attenders who completed a HPV vaginal self-sampling kit in the YouScreen trial

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Background: YouScreen was the first implementation feasibility trial to offer HPV vaginal self-sampling to cervical screening non-attenders within the NHS cervical screening programme. A cross-sectional questionnaire was embedded in the trial. We explored the distribution of kit-completers across stages of the Precaution Adoption Process Model (PAPM) and analysed future cervical screening preferences.

Methods: Of 8,333 eligible kit-completers, 2,660 (32%) returned a questionnaire and 2,654 were included in the analysis. Kit-completers were asked about their previous cervical screening behaviour and allocated to a PAPM stage (Unaware, Unengaged, Undecided, Active decliner, and Intender). An additional group (those who did not think they were overdue) were included in the analysis but did not fit within a PAPM stage.

Results: Over a third of kit-completers had been intending to go for screening (37%), 11% had decided not to attend and 7% each were unaware, unengaged, or undecided. A fifth did not think they were overdue for their test, despite clinical records showing that they were. We found women in earlier stages of the model (unaware/unengaged/undecided) were the most overdue for cervical screening and there were differences in PAPM stage distribution by age and ethnic group. Preferences for future self-sampling were high across all groups but highest in active decliners (96% vs. 73% for intenders). Active decliners were also more likely to prefer a urine-based self-sampling test in the future (54% vs. 37% for intenders).

Conclusions and Implications: This is the first study to find that the most overdue cervical screening non-attenders (identified by health records) are more likely to be at earlier stages of the PAPM than those who are less overdue. The results demonstrated that self-sampling is likely to be preferred over clinician screening by a proportion of non-attenders across the PAPM but especially for women who have actively decided against screening previously.

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Intention to have blood-based multi-cancer early detection (MCED) screening – a cross-sectional population-based survey in England

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Background: Blood-based multi-cancer early detection (MCED) tests look for evidence of multiple cancer types in a standard blood sample. Their clinical utility for asymptomatic screening is currently being investigated in the NHS-Galleri trial (NCT0561162). It is therefore essential to understand public attitudes towards MCED screening, to inform future possible implementation by the NHS. We aimed to quantify the intention to have MCED screening and potential barriers and facilitators.

Methods: Adults aged 50-77 (n=958) completed an online survey hosted by YouGov. Participants were given information about MCED screening. The primary outcome was a hypothetical intention to have MCED screening if offered. Anticipated barriers, facilitators and psychological variables (including perceived risk of cancer, cancer worry, fatalism and general screening attitudes) were also assessed. We used logistic regressions to test associations between intentions, and socio-demographic and psychological factors.

Results: 93.8% (95% CI:92.1-95.2%) of participants said they would “definitely” or “probably” have MCED screening if offered. Intention was significantly higher in those who had always attended screening previously ($p<.001$) but was not associated with other socio-demographic factors. Perceived risk of cancer, cancer worry, fatalism and general screening attitudes were all associated with intention. The most frequently endorsed barriers were fear of the results (45.0%; 95% CI:41.9-48.2%) and needing more information (39.6%; 95% CI:36.5-42.7%). The most frequently endorsed facilitators were the speed and safety of blood tests (92.9%; 95% CI:91.1-94.4% and 92.7%; 95% CI:90.9-94.2% respectively). A quarter of participants felt that the potential anxiety following a positive result would put them off MCED screening “quite-a-bit” or “a-great-deal”.

Conclusions and implications: Hypothetical intention to have MCED screening was high and the potential for a cancer screening blood test was well received. Providing information about MCEDs and what to expect during and after screening will be essential to mitigate anxiety and fear following a positive result.

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E.5 SUSTAINABLE FOOD CHOICES

(Oral Presentations)

Impact of pictorial warning labels on meat meal selection: A randomised experimental study with UK meat consumers

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Background: Meat consumption has been linked to adverse health consequences, worsening climate change, and the risk of pandemics. Meat is however a popular food product and dissuading people from consuming meat has proven difficult. Outside the realm of meat consumption, previous research has shown that pictorial warning labels are effective at curbing tobacco smoking and reducing the consumption of sugary drinks and alcohol.

Methods: The present research extends this work to hypothetical meat meal selection, using an online decision-making task to test whether people's meal choices can be influenced by pictorial warning labels focused on the health, climate, or pandemic risks associated with consuming meat. Setting quotas for age and gender to approximate a UK nationally representative sample, a total of n = 1001 adult meat consumers (aged 18+) were randomised into one of four experimental groups: health pictorial warning label, climate pictorial warning label, pandemic pictorial warning label, or control (no warning label present).

Results: All warning labels reduced the proportion of meat meals selected significantly compared to the control group, health warning labels reduced meat meal choices by 8.8% (-0.491; p<.001; 95%CI [-0.724/-0.257]), climate labels by 7.4% (-0.441; p<.001; 95%CI [-0.675/-0.207]), and pandemic labels by 10% (-0.548; p<.001; 95%CI [-0.778/-0.317]). There were no statistically significant differences in meat meal selection between the different types of warning labels.

Conclusions and implications: This experiment provides initial evidence for policymakers and practitioners to consider regarding the use of pictorial warning labels on meat-based meals. Whilst warning labels communicating the adverse effects of meat consumption on health, climate, and pandemic risks all performed similarly well in reducing meat meal selection in a hypothetical task, there was also greater support for the introduction of climate warning labels compared to the health and pandemic warning labels.

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The “Eat Less Meat” one-month challenge: effects on short-term and long-term meat consumption among French young adults

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Background: Encouraging a shift towards a more plant-based diet in new generations is one of the major behavioural challenge to preserve population and planet health. As motivation is central to shape long-term behaviour change, we aimed to test the effect of a “Eat Less Meat” one-month challenge on immediate and long-term meat consumption of young adults.

Methods: In January 2023, 366 university students (21±3.2 years old) consented to participate in the “Eat Less Meat” challenge and were randomized to February challenge (n=187, intervention group) or June challenge (n=179, control group). Participants chose between three objectives: 0, 3 or 6 servings of meat per week. They received a meat-free recipes book and followed an Instagram account where motivational publications were posted every day. All the participants, in both the control and intervention groups, were asked to complete a food frequency questionnaire in January (T0, before), February (T1, during) and May 2023 (T2, 3 months after the challenge). Differences in meat consumption (g/day) between T1 and T0 and between T2 and T0 were compared between the intervention and the control groups using linear mixed models.

Results: We observed a significant decrease in meat consumption between T1 and T0 in both the intervention (T0: 119±17 g/day, T1: 51±17, p<0.001) and the control group (T0: 116±17 g/day, T1: 83±17, p<0.001) and this decrease was greater in the intervention group (-35±11, p=0.002). We observed a significant decrease in meat consumption between T2 and T0 in both the intervention (T2: 70±18, p<0.001) and the control group (T2: 69±18, p<0.001), with no difference between the two groups (-2.6±14, p=0.847).

Conclusions and implications: Participants in the “Eat Less Meat” challenge reduced their meat consumption during and 3 months after the challenge, however similar long-term effects were also observed in the control group.

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‘Not my kind of food’: How diet shapes the presentation of sustainable food choices

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Background: We analysed the relationship between food descriptions and dietary behaviour to better understand why shifting towards healthy and sustainable diets is so difficult. Specifically, we investigated how omnivores and vegans cognitively represent and publicly present meat and plant-based foods.

Methods: Across three pre-registered projects (NProject1 = 3956, NProject2 = 1063, NProject3 = 996), food descriptions were coded according to whether they contained features about consuming and enjoying food (e.g. ‘rich’, ‘indulgent’, ‘treat’) or to aspects independent of the consumption situation (e.g. ‘healthy’, ‘protein’, ‘eco-friendly’).

Results: In Project 1, social media posts about meat foods were described with more rewarding consumption language than posts about plant-based foods, which were instead described with more situation independent language – especially health aspects and identity-focused discourse (e.g. ‘nutritious’, ‘vegan community’). In Project 2, participants described ingroup foods (meat dishes for omnivores; plant-based dishes for vegans) with more rewarding consumption features than outgroup foods (vice versa). Instead, omnivores used more situation independent features for outgroup foods, and vegans more socio-political context language (e.g. ‘animal abuse’, 'bad for the environment'). In Project 3, when trying to make a plant-based dish appealing to omnivores in a hypothetical social media setting, participants used more rewarding consumption language than when appealing to vegans.

Conclusions and Implications: Despite people thinking about in-group foods in terms of rewarding consumption, plant-based foods are not publicly described in this way, even by vegans. As reward expectations drive food choices, this typical presentation of plant-based foods can hinder mainstream consumer transitions towards healthy and sustainable food choices and instead strengthen dietary group polarisation. Future communications about plant-based foods should focus on the rewarding features of consumption, to help break down barriers between omnivores and vegans by emphasising what these groups have in common: a shared motivation to enjoy food.

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Sustainability in food-based dietary guidelines: a review of recommendations around meat and dairy consumption and their visual representation

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Background: The transition away from meat and dairy consumption and towards more plant-based diets is vital for meeting environmental sustainability targets, including reducing greenhouse gas (GHG) emissions and land use from food. This is in addition to many health co-benefits such as a reduced risk of heart disease, strokes and type 2 diabetes. Food-based dietary guidelines (FBDG) exist to communicate nutrition information and recommendations to the public of a country’s population. However, it is not known how different countries’ FBDG communicate reducing meat and dairy intake to citizens in the context of sustainability.

Methods: We conducted a rapid review of consumer-facing dietary guidelines (n=58), to explore information and recommendations for reducing meat and dairy consumption in the context of sustainability, and the pictorial representation of these types of foods compared to other foods.

Results: Very few countries used a sustainability argument to recommend reducing meat (6/58) or dairy consumption (2/58). The proportion of dairy images within visual food guides was consistently higher than meat images. Furthermore, guidelines lacked specific actionable advice around sustainability and diet. This has vast implications for enacting actual behaviour change of reducing meat and dairy consumption.

Conclusions and implications: Overall, our review shows that not enough countries recommend reducing either meat or dairy consumption. Clearer guidelines backed by current evidence around both health and sustainability are needed. These guidelines should provide justification behind recommendations, actionable advice for how to meet the recommendations, and appropriate quantified targets or limits of certain foods. This well-rounded advice is imperative to empower citizens to take action on their dietary habits, to reduce global meat and dairy consumption and replace these with more sustainable alternatives for human and planetary health.

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Increasing the appeal of plant-based foods through describing the consumption experience: A data-driven procedure

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Background: Global meat consumption is a significant contributor to the high levels of greenhouse gases currently being emitted, and shifting diets to plant-based products is an effective way of limiting further climate change. However, plant-based products are often thought to be less tasty than their meat-based counterparts and perceived as unappealing by omnivorous consumers. Therefore, we present a systematic procedure for establishing and testing whether describing plant-based dishes in terms of the rewarding aspects of consumption has the potential to make them more appealing and increase intentions to select and consume them, ultimately facilitating behaviour change.

Methods: In Study 1 (N = 653), we asked participants to rate the extent to which various sensory, context, and hedonic features (i.e., soft, with friends, tasty) were viewed as positive or negative in relation to 20 savoury dishes. In Study 2 (N = 246), we selected the most positive features from Study 1 and asked participants to rate the fit of these features in relation to 12 novel plant-based dishes. In Study 3 (N = 1,204), we used the most fitting features from Study 2 to examine whether descriptions that incorporated them could increase the appeal and intention to order the same 12 plant-based dishes.

Results: The results showed that consumption and reward descriptions led to significantly higher appeal ratings and order intentions compared to control descriptions. Furthermore, these effect were partially mediated by the extent to which participants imagined consuming each dish.

Conclusions and Implications: This approach has shown that the rewarding features of familiar dishes can be transferred to novel and unfamiliar dishes in order to make them more appealing to consumers. Consequently, consumption and reward descriptions may help to increase the selection and consumption of plant-based foods, reducing the demand for animal-based products and the associated greenhouse gas emissions.

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Mobile Physical Activity Interventions for Women Undergoing Menopause in Saudi Arabia: findings from an empirical, qualitative investigation

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Being physically active can contribute to improved physical and mental health and better quality of life. However, women undergoing menopause are often missing out on the benefit of being active. In SaudiArabia, physical inactivity is prevalent, especially among middle-aged and older segments. International literature suggest that PA apps can potentially increase PA levels in older adults. However, scarce evidence focuses on menopausal women.

This study aimed to explore women's views and experiences of using smartphones for PA and the perceived acceptability of that, and gather insights on how mobile-PA-interventions should be tailored to menopausal women.

Online-based, semi-structured interviews were used to gather in-depth insights to allow rich discussion of individual experiences and sensitivity of menopause. Saudi women between40-64 years and who can access the internet were included. Purposive sampling was used to recruit a maximum variation between February-May2023. Social media recruitment and traditional channels were used. The TG was developed with reference to COM-B model, and refined iteratively based on feedback from experts and PPI. Data analysis was performed inductively using reflexive thematic analysis where organic coding was acknowledged and progressively evolved. A codebook and initial themes were generated by GS and then discussed with FH/RF to enhance the transparency and reflexivity in the interpretation.

29 interviews were conducted. Participants had average age 52.10(SD7.58), majority were married and had high education.13 were unemployed;11employed; and four retired recently. More than half of participants(55%) self-reported themselves as physically inactive(<30minutes of PA/day).

One overarching theme was identified:"Smartphone can offer a convenient means to PA but it feels like we don't fit in!"–P. Four distinctive but coherent set of themes were identified: menopausal women's attitude and experience with mobile-PA-technologies; women's skepticism toward publicly available, exercise apps, and characteristics needed for the mobile-PA-intervention to be suitable and motivational for menopausal women in Saudi Arabia.

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Dear Green Place: Exploring the impact of greenspace in dense-urban-areas for conservation volunteers' health and wellbeing in Glasgow

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Background: Urban greenspace (UGS) benefits the health and wellbeing of people living within dense-urban areas (DUAs). With stretched organisational budgets, conservation volunteers are more involved in the management of public and private UGSs within the UK. This exploratory research aimed to investigate the perceived benefits of being a conservation volunteer on one's health and wellbeing.

Methods: The study design was qualitative semi-structured interviews. We recruited 10 private and public UGS volunteers across Glasgow City through social media advertisements and snowball sampling. Data were collected using walking interviews (n=7), and remote interviewing (n=3). Interviews lasted an average of 40 minutes. All interviews were audio recorded, transcribed and inductive thematic analysis carried out.

Results: The four themes identified were: connection to nature, civic duty, social connection and barriers to wellbeing. Participants recognized the multifaceted benefits to their health and wellbeing from both volunteering and spending time regularly within UGS. In connecting to nature, participants found relaxation, practiced mindfulness and felt emotional relief from life stressors. Volunteering provided an opportunity for participants to enact a sense of civic duty and experience social connectedness, providing them with social support, fulfilment, reduced social isolation and was perceived to reduce the burden of mental illness. Volunteering was also a catalyst for wider social connection to their communities. A barrier to volunteer wellbeing was an ambiguous relationship with the local authority in some public UGSs. Multiple participants described feeling over-burdened, unclear power structures and unstable finances, resulting in distress and frustration.

Conclusions/implications: Volunteering benefits participants' health and wellbeing, and provides a valuable community service. Nevertheless, harnessing UGS volunteering as an intervention to improve health and wellbeing more widely requires the support of organisational structures, investment and resources for the full health benefits of volunteering to be realised.

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How Do Young Women Approaching Screening Age Interpret the NHS Cervical Screening Leaflet: A Qualitative Study of Leaflet Interpretation, Engagement and Future Screening Behaviour

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Background: Cervical cancer is the most common cancer diagnosis within woman aged under 35. Cervical screening participation rates within younger women (25-29) continue to fall in England. As the first point of contact for women being invited for their first screening, this study aimed to explore how young women (18-24) interpret and engage with the NHS cervical screening leaflet and assess the barriers and facilitators associated with leaflet interpretation, engagement, and screening intention.

Methods: Semi-structured one-to-one interviews were conducted with 10 purposely sampled young women. The interview topic guide contained: an assessment of leaflet utility (pre and post engagement), a think-aloud protocol for leaflet interpretation, and questions designed to identify potential barriers and facilitators in relation to participant characteristics. Transcripts were analysed using thematic analysis with identified themes highlighting barriers or facilitators of leaflet interpretation, engagement, and screening intention then mapped to the Theoretical Domains Framework (TDF) to identify key areas of influence.

Results: The interviews revealed knowledge gaps, issues within leaflet practicality, and a preference for digital information. Seven TDF domains were found to influence leaflet interpretation, engagement, and future screening behaviour: knowledge, social influence, beliefs about consequences, environmental context and resources, social role and identity, emotions, and intentions. Most domains had the potential to both facilitate or hinder leaflet interpretation, engagement, and future screening behaviour, however participants suggested that knowledge, environmental context and resources, and social influence were the most important factors with a potential negative influence.

Conclusions: The current leaflet does not provide enough information to young women as a first point of contact, some recipients may therefore struggle to make an informed decision about screening attendance. Future research should consider the provision of information using digital tools, and strategies to address existing barriers linked with interpretation and engagement.

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A challenge for behavioural medicine: A survey of awareness of lipoedema in a University population

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Background: Lipoedema is a condition of the fat and connective tissue which results in swelling, particularly around the thighs and the legs with serious physical and psychological consequences. It mainly affects women and may appear or worsen during puberty, pregnancy or menopause. It is a poorly known condition and is frequently misdiagnosed as obesity resulting in inappropriate referral to weight-management services. Although incurable, behavioural self-management can maximise physical and psychological health. The aim of this research was to identify awareness of lipoedema in a general population sample.

Methods: An online survey of Stirling University staff and students was conducted. Participants were asked if they had heard of lipoedema and, if so, were asked additional questions to explore their own experience of the condition and, among those with no personal experience, how they had heard about the condition.

Results: Ninety-five participants responded to the survey of whom 55 were students, 76 identified as female and the mean age was 34 years. Forty-nine (51.58%) had heard of lipoedema, none of whom had a formal diagnosis of the condition. However, seven (7.36%) reported that they thought they had lipoedema with six reporting symptoms typical of the condition. Eleven reported that they knew someone with the condition. The remaining 29 (30.53%) participants most commonly indicated they had learnt about lipoedema from the internet and social media (n=11), television (n=7) and their own or family members' professional training (n=5).

Conclusion and implications: The results provide support for patient reports of difficulties and delays in receiving a diagnosis of lipoedema. Heightened awareness of lipoedema among behavioural medicine professionals will increase the likelihood that patients receive a timely diagnosis and appropriate support.

Peer support interventions to support self-management for women with lipoedema, endometriosis, and Ehlers-Danos Syndrome: Protocol for a systematic review

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Background: Lipoedema is a long-term condition that primarily affects women. It tends to appear or worsen at puberty, pregnancy, and menopause, and results in changes to connective tissue and body fat. These changes result in the accumulation of body fat, particularly around the waist and legs. It is under-recognised, and many women live with the condition for many years before it is diagnosed. Lipoedema may be confused with overweight or obesity, leading to inappropriate self-management advice, stigma, and reduced psychosocial well-being. Given that lipoedema is incurable, learning to self-manage may enable patients to maintain optimal well-being. Psychosocial well-being may also be facilitated through peer support.

Methods: The initial aim of this review was to explore peer support interventions to facilitate self-management of lipoedema; however, preliminary searches found no relevant literature. The scope was broadened to include two conditions with similar healthcare-related and psychosocial challenges: endometriosis and Ehlers-Danos syndrome (EDS). Therefore, a systematic review of qualitative and quantitative studies evaluating the impact of peer support interventions for women with lipoedema, endometriosis, and/or EDS will be conducted. Evidence will be synthesised narratively to evaluate the impact of peer-support on self-management and well-being.

Results: This review will identify whether peer support interventions are effective in helping women to self-manage the target condition. Impacts on well-being and other psychosocial outcomes such as body image, intimate relationships, and reproductive health will also be considered. Results are expected in 2024.

Conclusions and Implications: Findings will inform the development and implementation of peer support interventions for people with lipoedema living in Scotland and guide future interdisciplinary research directions to promote health and well-being for those living with this poorly understood condition.

Women's experiences of seeking healthcare for abdominal pain in Ireland

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Background: Women’s abdominal pain is likely to be 87ormaliza or dismissed by healthcare professionals relative to men’s. This can have a detrimental impact on health and quality of life. The aim of this study was to explore women’s experiences of seeking healthcare for abdominal pain in Ireland.

Method: A qualitative design and opportunity sampling approach were employed. Fourteen women living in Ireland with experience of seeking healthcare for abdominal pain took part in one-to-one semi-structured interviews. Data were analysed using reflexive thematic analysis.

Results: Four themes were constructed from the data: [1] “Just Get on with It” – Normalisation and Invalidation; [2] “Bad Enough”? Costs of (Not) Seeking Help; [3] “Fight Your Case,” Fight for Care; and [4] “Out of the Loop” – Systemic Barriers to Care. Perceived invalidation of pain by healthcare professionals was common, as was 87ormalizatio 87ormalization of pain. This created challenges when negotiating pain management solutions. Participants felt their pain needed to reach an extreme level of severity before seeking help. Costs of private healthcare were implicated in delayed help-seeking. Participants felt the onus was on them to fight for care. Systemic issues were identified as barriers to adequate care. Despite their frustrations, participants expressed empathy for healthcare professionals operating in a flawed system.

Conclusions and Implications: Participants’ experiences were 87ormalization by dismissal of symptoms and 87ormalizatio 87ormalization of pain. This reinforced participants’ views that self-advocacy is essential to access care. There are systemic issues within the Irish healthcare system that limit women’s ability to access pain management support. Education and training for healthcare professionals on the Gender Pain Gap and its implications for patient care, as well as clear referral pathways for women presenting with abdominal pain, may help to ensure more equitable healthcare delivery for individuals with abdominal pain in Ireland.

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Social connection and mortality in UK Biobank

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Background: Components of social connection are associated with mortality, but research examining their independent and combined effects is lacking. We aimed to examine independent and combined associations between functional (subjective) and structural (objective) components of social connection and mortality.

Methods: Prospective analysis of 458,146 UK Biobank participants. Social connection components included two functional (frequency of ability to confide and often feeling lonely) and three structural (frequency of friends/family visits [FFV], weekly group activity, and living alone) measures. Adjusted Cox proportional hazard models were used to examine associations with all-cause (ACM) and cardiovascular disease mortality (CVDM).

Results: Over 12.6 years follow-up, 33,135 (7.2%) participants died, including 5,112 (1.1%) CVD deaths. All social connection measures were independently associated with outcomes. There were interactions between living alone and FFV and between living alone and weekly group activity. Compared with daily FFV-not living alone, there was higher ACM for daily FFV-living alone (HR 1.19 [95%CI 1.12-1.26]), never having FFV-not living alone (1.33 [1.22-1.46]), and never having FFV-living alone (1.77 [1.61-1.95]). Never having FFV whilst living alone potentially masked beneficial connections as risks were highest for those never having FFV whilst living alone regardless of other measures. With measures combined, there was an interaction between overall functional and structural components. Compared with no structural nor functional isolation, those with both components of isolation had higher CVDM (HR 1.63 [1.51-1.76]) than those with each component alone (functional isolation 1.17 [1.06-1.29]; structural isolation 1.27 [1.18-1.36]).

Conclusions and implications: This study suggests 1) those who live alone and have additional markers of isolation are a high-risk population, 2) that beneficial associations for some types of social connection might not be felt when other types are absent, and 3) considering both functional and structural components of social connection are needed to identify the most isolated in society.

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Students' emotional experiences with climate change and how universities can help

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Background: A large majority of young people in the UK experience anxiety and negative emotions about climate change, which affects their everyday psychological functioning. Here, we investigated how university students in particular experience climate-change-related psychological wellbeing.

Methods: We designed a pre-registered online study to investigate students' (N = 869, at a large UK university) climate anxiety, climate-change-related emotions, thoughts, and views about their university's role in climate change. Results were explored in R, including data visualisations and correlational analyses. We applied quantitative content analysis to investigate open-text responses.

Results: Participants experienced moderate climate anxiety across situations (M = 5.00 on 0 to 10 continuous scale). Participants reported high average levels of negative emotions, which were linked to climate anxiety intensity, including sadness (r =.59, p <.01), helplessness (r =.50, p <.01), and powerlessness (r =.48, p <.01). On average, participants experienced high levels of negative thoughts, such as "The future is frightening" (r =.55, p <.01) and "Humanity is doomed" (r =.45, p <.01), which likewise correlated with anxiety intensity. Generally, students had low to moderate faith in their university's climate actions. Almost 70% of participants favoured more climate change content to be included in teaching. Mostly, they wanted more climate change content (N = 207) and content specific to their chosen subject (N = 151). Finally, 43% were in favour of the university providing climate-change-related mental health support for students, mostly requesting counselling (N = 141). However, 52 students mentioned that more climate mitigation actions by the university could directly support their mental health.

Conclusions and implications: Climate change seriously affects many university students' psychological wellbeing. This has implications for how universities recognize and respond to the link between universities' climate action and protecting students' psychological wellbeing.

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Connection for wellbeing

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Background: Connection is "feeling a part of something larger than yourself, feeling close to another person or group, feeling welcomed, and understood." We aimed to develop a 'research cycle' to support people with learning difficulties (PWLDs) carry out two interlinked research projects to improve "connection for wellbeing":

- Creating a community wellbeing garden
- Creating a Makaton friendly community

Methods: Two academic researchers spent a couple of days each month over 14 months at a day resource for PWLDs. We adapted and tested traditional research steps e.g., data collection, analysis and presentations with PWLD. We took photographs and videos (we will show some of these at UKSBM) as we co-created a research cycle.

Results:
The research cycle has 6 steps:
i) Relationships – where we spent the first few months getting to know each other
2. Project – choosing research projects
3. Find - tasks for finding things out aligned with each PWLDs skills, interests and abilities. Tasks included taking photographs, asking questions, visiting cafes and gardens, taking notes, open days. PWLDs role-played seeking consent to take someone's photograph.
4. Understand - We worked together to understand all newly gathered information. For example, PWLDs produced graphs (bar charts) to display the results to the question: "What would you like in a community wellbeing garden?"
5. Share – PWLDs shared their understanding and interpretations of the results. They did this through group discussion, creating drawings and paintings, writing stories, making display boards, and creating videos.
6. Celebrate - We celebrated our achievements

Conclusions: PWLD doing community-based research can help them to connect, belong and improve their health and wellbeing.

Implications: The next steps are to continue to evaluate the research cycle on psychological wellbeing, including 'connection'.

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Can continuous heart rate variability monitoring, combined with contextual and psychological measures be used to detect patterns of stress and recovery in medical doctors?

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Background: Burnout is a rising concern among medical doctors. Heart rate variability (HRV), a non-invasive measure of autonomic nervous system activity, reflects physiological states of sympathetic (stress) and parasympathetic (recovery) activity. Whilst HRV is known to provide insight into momentary stress responses, its utility over extended time periods remains unclear.

Methods: A systematic review was conducted (PROSPERO: CRD42023413282) with a comprehensive search of databases and grey literature sources coupled with hand citation searching. Primary studies were eligible where they reported at least one recognised HRV parameter combined with at least one contextual or psychological assessment and assessed over a period lasting 24 hours or more.
Two independent reviewers assessed abstracts and full texts against inclusion criteria, with a third reviewer resolving disagreements. Extracted data included study population, methodological factors including HRV device, HRV parameters reported, length of HRV measurement and contextual and psychological measures used.

Methodological quality was assessed using the JBI risk of bias assessment for case reports (JBI, 2020) and STARD(HRV) (Dobbs et al, 2019).

Results: After removing duplicates, 677 abstracts were screened, resulting in 39 full-text reviews. Thirteen studies met the inclusion criteria, with three subsequently excluded due to HRV reporting methods and one due to the overall poor quality of the review. Substantial heterogeneity existed, and while all studies reported an association between HRV and stress and recovery, methodological diversity was considerable. HRV measurement periods ranged from 24-48 hours, a wide variety of devices were used, the most frequently used psychological measures were the state-trait anxiety inventory (n=2) (Spielberger et al,1983) and the Job Content Questionnaire (n=2) (Karasek, 1985).

Conclusion: Continuous HRV monitoring combined with contextual measures proves useful in tracking stress and recovery patterns. However, further high-quality studies are required, particularly to understand the association between HRV and subjective measures of stress.

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An experimental approach to examining the impact of participant feedback on intervention acceptability

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Background: Intervention acceptability is an important consideration in the design, implementation, and evaluation of healthcare interventions. Participant feedback about interventions may increase acceptability, yet whether incorporating such feedback actually improves acceptability is rarely tested. The aims of the present study were to: (a) ensure that a large representative sample of people with lived experience is involved in the process of refining an intervention to increase acceptability; and (b) adopt a theory-driven, experimental approach to evaluating whether refining an intervention based on participant feedback increases acceptability.

Methods: Three hundred and ninety-three adults who had previously self-harmed were exposed to the same intervention (aimed at reducing self-harm) at baseline. At six months, participants were randomly assigned to either: (a) the original intervention (control group), or (b) the revised intervention (experimental group). The main outcome was acceptability ratings for each of the seven domains specified in the Theoretical Framework of Acceptability (TFA). Data were analysed using descriptive statistics, chi-square, and mixed ANOVAs (with control versus experimental group as the between-participants factor, and time [baseline versus follow-up] as the within participants factor).

Results: At six-month follow-up, there were no significant changes in acceptability in any of the TFA domains. Participants found both the original and modified versions of the intervention equally acceptable. Our process of refining an intervention based on participant feedback did not impact on acceptability.

Conclusions and implications: Our tool provides a systematic method of evaluating whether refining an intervention based on participant feedback increases acceptability. With further testing across different populations and interventions we hope the tool provides researchers with a method of improving intervention acceptability.

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The role of practice nurses in the earlier diagnosis of cancer and what may be holding them back from doing more

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Background: Primary care practice nurses have a key role in the earlier diagnosis of cancer. They may be the first point of contact for patients, managing those with long term conditions, helping patients navigate the health system and making decisions about next steps for patients presenting with symptoms. The research aimed to understand how practice nurses feel about their role in early cancer diagnosis and explore barriers they may be facing.

Methods: An online quantitative survey was administered to a panel of UK practice nurses (n=319) by Dynata (January 2023). The survey included questions around the challenges facing primary care, practice nurses' perception of their own role in the earlier diagnosis of cancer, and barriers to doing more.

Results: Almost a quarter (24%) of nurses say that they never encourage people to spot and/ or respond to potential cancer symptoms. Confidence and perception of responsibility in this area was low, with only 35% feeling confident to spot potential cancer symptoms, and 35% feeling that it was not a part of their role. Only 32% felt like they have the time to discuss and carry out examinations. In terms of patient management, only 36% felt confident in manging patients presenting with potential symptoms of cancer such as weight-loss or fatigue. Furthermore, only 52% of nurses agreed that if cancer is diagnosed earlier, it is more likely to be treatable.

Conclusions and implications: This research highlights the challenges for primary care in their role in earlier cancer diagnosis. Crucially, interventions are necessary to support professionals who could positively impact the earlier diagnosis of cancer. Practice nurses will require upskilling and training in cancer signs and symptoms, the importance of timely diagnosis in cancer outcomes, how to discuss these with patients, and subsequent patient management via correct patient management and safety netting.

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Acceptability of multi-cancer early detection blood tests as a population-based screening programme – a qualitative study in Great Britain

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Background: England, Scotland and Wales currently have single-cancer screening programmes. Trials are underway to test the clinical effectiveness of multi-cancer early detection (MCED) blood tests in asymptomatic individuals. We sought to understand the acceptability of MCED blood tests in the population and potential barriers and facilitators to participation.

Methods: We conducted eleven online focus groups with 50-77-year-olds (n=53) in 2022. Participants were purposefully sampled to represent a mix of socio-economic and ethnic backgrounds and include some who would not want ‘a blood test for cancer’. Groups were semi-structured and participants were shown information about MCED blood tests. Reflexive thematic analysis was used.

Results: Participants showed enthusiasm for MCED screening. Perceived benefits included procedural familiarity (that blood tests are a ‘standard’ procedure) and the potential to screen for many cancers at once which “made sense”. Some were disappointed to hear that MCED screening would not replace current programmes, while others felt it would give “more ammunition” to detect cancer. Enthusiasm was driven by beliefs that cancer is a real and increasing risk (both in prevalence and personally with age) and that early detection reduces treatment burden and cancer mortality. The potential for MCED tests to raise anxiety was a concern, especially in a false-positive scenario. High accuracy was considered essential. Participants wanted to avoid unpleasant and unnecessary procedures.. Views on MCED screening sat against a backdrop of wider factors including dislike of uncertainty, desire for choice and control, and existing relationships with the NHS.

Conclusion: The introduction of MCED screening may be appealing to many due to the simplicity and familiarity of the primary test procedure. Test accuracy needs to be high to facilitate acceptability, and communicating accuracy from the outset is important. Some people do not want to know if they have cancer, and MCEDs will not appeal to all.

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The barriers and facilitators to weight loss during the Covid-19 pandemic

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The Barriers and Facilitators to Weight Loss During the Covid-19 Pandemic

Background: People living with overweight and obesity are at increased risk of poorer Covid-19 outcomes. This study aimed to explore the barriers and facilitators to weight loss in adults with overweight or obesity during the COVID-19 pandemic and whether the perception of severe disease from Covid-19 was related to behaviour change and weight loss. Specifically, we aimed to answer: 1. Have lockdowns helped or hindered people with overweight or obesity in achieving their weight loss goals? 2. Has the perception of severe disease from Covid-19 in people with overweight and obesity led to behaviour change and weight loss?

Methods: Eight semi-structured online interviews were conducted with adults who lost weight during the pandemic. These were analysed using a deductive/inductive thematic analysis approach within the frameworks of the COM-B model and Theoretical Domains Framework.

Results: Five deductive themes were identified: 1) Gaining nutritional knowledge, 2) Having more time due to Covid-19, 3) Environmental changes, 4) Restrictions to social life and 5) Fear of Covid-19. All themes were facilitators to weight loss except Environmental changes, which was both a barrier and facilitator. One inductive theme was found: General wellbeing. This was divided into two subthemes 1) Coping Strategies and 2) Structure and Routine. Both aided weight loss, however the former also hindered this for some participants.

Conclusions and Implications: The findings provide insight on factors supporting weight loss during this context when multiple barriers existed. The theoretical support allows a behavioural diagnosis to be made. Implications for findings include weight management intervention design focussing on environmental changes and nutritional knowledge, and public health message framing in future lockdowns highlighting the importance of adaptive coping and maintaining a routine to preserve wellbeing.

Keywords: Barriers; Facilitators; Weight Loss: Weight Management: Covid-19: Lockdown

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Paid work and informal caregiving- a balancing act for wellbeing?

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Background:
Providing typically unpaid support to a loved one during illness or disability, whilst continuing to undertake paid employment, has probable implications for caregiver (CG) wellbeing, the care provided, and paid work carried out. Dual roles may provide role conflict, or potentially role or personal enhancement. We consider the extent to which working carers disclose their caregiving role in the workplace, the reported impact of their caregiving on their work role, and the association between these factors, their own self-rated physical and mental health (SRPH, SRMH) and their wellbeing.

Methods:
1. Secondary analysis of data from a large scale online survey (ENTWINE, N=1368) compared working and non-working CGs in terms of key outcomes
2. A study of working CGs examined the role of CG self-reported health (mental and physical), workplace disclosure, impact on work and wellbeing (WHO-5)

Results: ENTWINE data showed that having a paid job whilst also being an informal CG was not associated with either burden or personal gains, but was associated with wellbeing whereby working CGs reported significantly higher wellbeing (p<.004). The 2nd study of working CGs found that 18% had not disclosed CG role to their employers, 84% considered paid work as respite, yet 44% had considered quitting, 55% had decreased their hours, and 64% found that caregiving interrupted their work. Levels of CG wellbeing, SRPH and SRMH were moderate and were significantly associated. Those who had decreased hours at work had poorer SRPH, and those who had considered quitting had significantly lower wellbeing, SRPH and SRMH. Disclosure of CG role to employers was not associated with CG wellbeing.

Conclusion & implications: Working whilst caregiving may not impact wellbeing but 92ecognizing the impact on work role maintenance or performance and the association with CG health may inform supportive workplace environments. Further analysis will identify support needs.

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Investigating the effect of the SHARP intervention to increase physical activity levels within primary PE in Scotland

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Background: The SHARP intervention represents five principles which school teachers can implement to increase active learning in physical education (PE) lessons. SHARP has been shown to be effective at increasing children's health-enhancing moderate to vigorous physical activity (MVPA) in primary schools in England, however, the intervention has not been tested in a Scottish context. The aim was to pilot the SHARP teacher training and evaluate the delivery in Scotland.

Methods: A non-randomised experimental pilot was conducted involving two classes (23 pupils aged 5 - 6 years and 28 pupils aged 9-10 years) in one Scottish primary school (n=51). The intervention involved online teacher training to develop teacher effectiveness through the SHARP Principles Model which was grounded in Self Determination Theory, the Social Ecological Model and three key ingredients from the Behaviour Change Taxonomy. MVPA (measured using triaxial accelerometry, paired t-test statistics using SPSS) was estimated at baseline and six weeks after the SHARP teacher training and semi-structured interviews (online, analysed using Thematic Analysis) were run with the trained school staff (one classroom teacher and one school sport coordinator).

Results: SHARP teacher training was feasible to deliver online. Evidence of effectiveness in increasing MVPA and step count for children aged 5 to 6 years (both $p<0.05$) and increases in light intensity PA and MVPA (both $p<0.05$) in children aged 9-10 years was found. Interviews with trained staff indicated positive experiences of implementing the SHARP principles into their PE practice through increased confidence and using ideas from SHARP resource cards and peer support. They also noted positive impact on pupil's engagement and classroom behaviour.

Conclusion: SHARP training was feasible to deliver, and the principles were implemented by trained staff in their PE lesson resulting in modest increases in PA. SHARP should be evaluated on a wider scale via pilot or full-scale trial.

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GPs and practice nurses' attitudes, knowledge, and confidence on smoking cessation

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Background: To support smoking cessation, the government has announced plans to more than double the budget for stop smoking services, investing an additional £70 million per year. To support this initiative, health professionals must be well-equipped to assist individuals with quit attempts. This research set out to understand health professionals' attitudes, knowledge, and confidence around smoking cessation, exploring where interventions would best be targeted.

Methods: An online quantitative survey was administered to UK health professionals by Dynata (January 2023). Participants were from all UK nations: GPs=618, Practice Nurses=319. The survey included questions on the frequency of, and confidence in, having conversations about smoking, quit attempts, and the perceived effectiveness of Very Brief Advice (VBA).

Results: For GPs, 78% agree that it is part of their role to encourage people to stop smoking. However, only 57% feel they have a good understanding of available smoking cessation services. Only 52% agree that VBA is effective in encouraging smoking cessation. However, 46% want to take a more active role in encouraging people to quit, with time restraints the biggest barrier (71%).

For nurses, only 51% agree it is part of their role to encourage people to stop smoking. Almost a third (31%) agree that there is nothing people can do to reduce their chances of developing cancer. Additionally, 16% feel their efforts wouldn't impact people's smoking decisions, highlighting a lack of motivation to engage in conversations.

Conclusions and implications: Health professionals' do not feel they have time to encourage quit attempts, and VBA was not widely perceived to be effective. Compared with GPs, nurses feel less responsibility for encouraging quit attempts and therefore engage in associated conversations less frequently. The barriers identified provide a starting point for interventions that support healthcare professionals to assist individuals with quit attempts and ultimately decrease smoking rates.

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The Relationship Between Antenatal Physical Activity, Sedentary Behaviour, and Nutritional Practices with Maternal and Foetal Health Outcomes: A Scoping Review in the Irish Context

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Background: Existing pregnancy guidelines advocate for the practice of physical activity (PA), reduced sedentary behaviour (SB), and healthy nutritional practices (NP), however a gap persists between policy and practice in Ireland. Various interventions have been developed to encourage these behaviours during pregnancy. This scoping review aimed to synthesise recent literature on antenatal PA, reduced SB, and healthy NP on the island of Ireland and examine their relationship with pregnancy and foetal health outcomes.

Methods: The ‘Preferred Reporting Items for Systematic Reviews and Meta Analyses’ (PRISMA)-Scoping Review (ScR) methodology and Arksey & O’Malley’s (2005) five-stage approach to conducting a scoping review was employed. Keywords and phrases e.g., ‘Sedentary Time’ and ‘Pregnancy’ were adopted to search electronic databases (PubMed and Scopus) from 2013-2023. Included studies (1) had an island of Ireland population, (2) were published in peer-reviewed journals, and (3) not meta-analyses; systematics reviews; scoping reviews or reports. Relevant data was imported into Covidence, where screening and extraction occurred.

Results: Thirty-four studies met inclusion criteria, with thirty-six different outcomes recorded. Birthweight was most reported (n=16), followed by gestational weight gain (n=13). Twenty-five publications recognised that there was a relationship between PA, SB or NP and pregnancy/foetal health outcomes. Nine studies reported no relationship. Nutritional interventions were implemented most frequently (n=29), followed by PA (n=19) and SB (n=6). No consistent relationship was observed between interventions and outcome measures across studies.

Conclusions and Implications: The conflicting results across included studies, highlights challenges in translating research into clinical practice. Discrepancies are evident between study interventions, the health service, and World Health Organisation guidelines. Limited exploration of sedentary behaviour underscores a gap in policy and practice on the island of Ireland. Further research is essential to clarify the relationship of these practices with pregnancy and foetal health outcomes, to inform policy and enhance perinatal healthcare.

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Barriers and enablers to family caregivers providing pressure ulcer care to older people living at home: Preliminary findings from a qualitative study informed by the Theoretical Domains Framework

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Background: Pressure ulcers (PU) are a burdensome condition predominately affecting older adults. Informal family caregivers often play an important role in PU care in the home. Although this can present significant challenges, few studies have examined the experience of providing this care from the perspective of informal caregivers. This study aimed to explore family caregivers’ barriers and enablers to providing PU care.

Methods: We conducted qualitative semi-structured interviews online or by telephone. The topic guide was informed by the Theoretical Domains Framework (TDF). Adult family caregivers, providing at least twice weekly care to an individual over age 65 with a PU were recruited via NHS community, district nursing and tissue viability teams.
Framework analysis was used. Transcripts were deductively coded into TDF domains, and themes and subthemes inductively generated.

Results: We interviewed 27 first and second generation caregivers: one first generation and 15 second generation females; 5 first generation and 6 second generation males.
Important barriers to PU care included:

- negative impact of providing care on the caregiver (TDF domains: beliefs about consequences, emotions);
- lack of information and advice (knowledge and environmental context and resources (ECR));
- availability of wound management products (ECR);
- perceptions of PU (knowledge).

Enablers included:

- caregivers' motivation to care for their relatives (emotion);
- perceived benefits of their care to their relatives (beliefs about consequences);
- availability of NHS provided support (ECR)

Conclusions and implications: This study identified important barriers and enablers that family caregivers experience in providing PU care. NHS care pathways need to consider the support needs of family caregivers. Study findings will be taken forward to develop an intervention for caregivers.

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Cervical Cancer Screening in Young Women and People with a Cervix: An application of the COM-B model

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Background: Cervical cancer, which is caused by the human papillomavirus (HPV), results in around 3,000 new cancer cases yearly in the UK. According to recent figures rates in the UK have increased by 13% in young females over the last decade, and screening attendance has fallen to a 10-year low. As the majority of women now reaching the screening age (24.5 years old) will be HPV vaccinated, research is needed to assess the possible impact of this successful immunisation programme on screening behaviours as well as to further our understanding of the current barriers and facilitators to screening, and how these may differ between attendees and non-attendees.

Methods: Participants will comprise 200 attendees (n = 100) and non-attendees (n = 100) of cervical screening aged 25-30 years old living in the UK. Participants will complete an online questionnaire designed using the COM-B model and insights from our previous qualitative works. The two groups (attendees vs non-attendees) will be compared on the COM-B components/measures, using t-tests and logistic regression. Chi-square analysis will be used to examine the influence of vaccination status on attendance behaviour.

Results: Based on our previous qualitative work, it is expected that psychological capabilities (e.g. knowledge) and social opportunities (e.g. communication with friends) will be the most significant COM-B components differentiating between groups. In contrast, reflective motivation components (e.g. reassurance) are likely to be similar among both groups. In addition, HPV-vaccinated individuals are expected to be more likely to have attended screening when compared to non-vaccinated individuals.

Conclusions and Implications: Significant COM-B components identified in this study could be used to guide future intervention development, to increase the uptake of cervical cancer screening in this age group. In addition, the results will increase our understanding of the impact of the HPV vaccination on cervical cancer screening behaviour.

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The PHEM-B toolbox of methods for incorporating the influences on Behaviour within Public Health Economic Models

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Background: It is challenging to predict long-term outcomes of interventions without understanding how they work. Health economic models of public health interventions often do not incorporate the many determinants of individual and population behaviours that influence long term effectiveness. The aim of this research is to draw on psychology, sociology, behavioural economics, complexity science and health economics to: (a) develop a toolbox of methods for incorporating the influences on behaviour into health economic models of public health interventions (PHEM-B); and (b) set out a research agenda to further advance these methods to better inform public health policy decisions.

Methods: A core multidisciplinary group developed a preliminary toolbox from a published review of the literature and tested this conceptually using a case study of a diabetes prevention simulation. The core group was augmented by a wider multidisciplinary group. We used a consensus method, including a one-day workshop and subsequent reviews, to gain agreement of the PHEM-B toolbox.

Results: The PHEM-B toolbox sets out 11 methods which can be used in different combinations to incorporate influences on behaviours into public health economic models: collaborations between modellers and behavioural/ social scientists, literature reviewing, application of the Behaviour Change Intervention Ontology, systems mapping, agent-based modelling, differential equation modelling, social network analysis, geographical information systems, theory-informed statistical and econometric analyses, expert elicitation, and qualitative research/process tracing. For each method, we provide a description with references, a decision framework about when they could be used, and resources required.

Conclusions and Implications: This is the first attempt to rigorously propose methods to incorporate the influences on behaviour into health economic models of public health interventions. Future research is needed to develop, collaboratively with behavioural scientists, a suite of more robust health economic models of health-related behaviours, reported transparently, including coding, which would allow model reuse and adaptation.

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Personalising weight loss interventions using cognitive-behavioural phenotypes

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Background: Weight management interventions are frequently prescribed to patients in a generic way, without taking into account between-patient psychological and behavioural differences. The aim of this study is to identify different cognitive-behavioural phenotypes (profiles) of patients seeking to lose weight, which would permit intervention personalisation.

Methods: Patients who recently started a weight loss programme with an NHS-contracted service are being recruited over email. Participants are completing a survey assessing their food-related cognitions (e.g. food cravings, hedonic overeating), behaviours (e.g. reliance on convenience foods, eating-related habits) and healthy eating knowledge.

Results: Data is still being collected and results are due in February 2024. The analysis will consider whether construct scores can be clustered into meaningful phenotypes, for which tailored interventions can be selected, and will assess if the number of items in the survey can be reduced without losing its predictive power. We plan to run correlation matrices, factor analyses, and a cluster analysis to answer these questions

Implications: Existing evidence implies that matching patients to interventions which address their most pertinent barriers to lifestyle change can be more effective than offering generic weight loss advice. We will develop a novel protocol for identifying cognitive-behavioural phenotypes (profiles) for patients based on scores of validated psychological and behavioural measures, to enable such personalisation. This method should allow for a variety of information sources to be integrated to produce a cohesive set of phenotypes, which can be constructed for specific populations and account for different patient needs. We hope our approach will demonstrate an evidence-based strategy for personalising digital health interventions and serve as a precursor to testing the acceptability and effectiveness of phenotype-specific weight loss interventions.

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Connecting the dots: Women's perceptions of bio-psycho-social factors in Fibromyalgia

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Background: Fibromyalgia Syndrome (FMS) is a chronic condition typified by a range of symptoms, including widespread pain and fatigue. FMS affects 2.5 million people in the UK, with over 80% being women. Patients are offered palliative treatment, such as pain management (Adams & Turk, 2018). Aetiology is poorly understood, and a traditional medical model cannot explain idiosyncratic symptom profiles. This has resulted in calls to adopt a bio-psycho-social approach to understand and treat FMS (Adams & Turk, 2016). The current qualitative study aims to better understand women's perceptions of bio-psycho-social factors which may contribute to their symptoms.

Methods: Eight women with a clinical diagnosis of FMS took part in semi-structured qualitative interviews, analysed using reflexive thematic analysis (Braun & Clarke, 2018).

Results: Five themes arose from the data. 1. Medical issues, e.g. medical trauma and repeated childhood illnesses. 2. Stressful life events, such as childhood adversities and associated psychological sequelae. 3. Overworking, linked to perfectionism and poverty. 4. Grief, anger, and dysfunctional coping strategies. 5. Systemic issues, such as poor healthcare experiences, lack of understanding from others, and difficulties with benefits, employment, and NHS systems.

Conclusions and implications: Results highlight the complex interaction of biopsychosocial factors in FMS. The possibility that factors such as stress and childhood adversities could contribute to symptoms, and that systematic factors could help maintain them, was a new idea to many participants enabling them to "connect the dots" between their experiences and symptoms. More education when first diagnosed may support women in understanding their condition and developing adaptive coping strategies. They provided insight into what they need in new educational resources, which leads me into my next study of creating such a resource.

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Barriers and facilitators of guideline adoption in healthcare professionals: a scoping review

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Background: Guidelines promoting evidenced-based clinical practice in healthcare professionals (HCPs) are fundamental to improving healthcare and patient outcomes, however, their adoption by HCPs is often suboptimal. To broadly understand what is currently known about the levels of guideline adoption and its associated behavioural barriers and facilitators in HCPs, we conducted a scoping review. To support future intervention design, we mapped these findings onto theoretical models of behaviour change.

Methods: International, peer-reviewed journal articles identified via OVID Medline that investigated the barriers or facilitators of guideline adoption in HCPs, were eligible for inclusion. Extracted data from included studies was first synthesised thematically using Braun and Clarke's six-stage method, and then theoretically categorised using the capability, opportunity, motivation, and behaviour (COM-B) model and the Theoretical Domains Framework (TDF).

Results: Twenty-seven studies were included, covering a range of methodologies, therapeutic areas and five continents. Most studies reported poor to moderate levels of guideline adoption (<70%). The behavioural determinants of guideline adoption were captured by sub-themes, themes and more comprehensively, four overarching themes: (1) guideline, (2) individual HCP, (3) collective HCP, and (4) systemic factors. The most common barrier was resource issues (e.g., time constraints), which mapped onto physical opportunity (COM-B) and environmental context and resources (TDF). The most common facilitator was favourable attitudes towards guidelines (e.g., perceived clinical benefits), which mapped onto reflective motivation (COM-B) and beliefs about consequences (TDF).

Conclusions and implications: Resource constraints were predominant barriers, but favourable attitudes towards guidelines were influential and modifiable facilitators of guideline adoption. Theoretical models of behaviour change provide a useful structure to understand the determinants of guideline adoption for intervention designers, enabling a transformation of tangible understanding of factors influencing guideline adoption to behaviour change techniques. Future researchers should systematically review the determinants of guideline adoption and the impact of interventions on guideline adoption.

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A method for the health community to assess the proportion of food and beverage companies' sales that are derived from unhealthy foods

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Background: Recently there have been a number of high-profile cases of conflict of interest when it comes to corporate engagement. There is a need for a method to support health organizations in deciding whether and how to engage with the F&B sector. The aim of this study was to develop a method that quantifies the proportion of sales from F&B companies that are derived from unhealthy foods to support organizations in assessing which companies might be considered high-risk for engagement.

Methods: The WHO Euro nutrient profile model was applied to 35,550 products from 1294 brands manufactured by the top 20 global food and beverage companies in Australia, Brazil, China, India, South Africa, UK and USA. Products that failed to meet the criteria were classified as "unhealthy". Products were grouped by brand and weighted by the brand's value sales for 2020. The primary outcome was the proportion of each company's sales that were classified as unhealthy and healthier by company and category.

Results: 89% of the companies' brand sales were classified as unhealthy. For every USD$10 spent on these brands, only $1.10 was spent on products considered healthier. All companies saw the majority of their sales come from unhealthy foods, including soft drinks, confectionery and snacks. None of Red Bull or Ferrero's sales were classified as healthier and less than 5% of total sales were healthier for Mondelēz, Mars, and PepsiCo.

Conclusion and implications: These results highlight the reliance the leading food and beverage companies have on sales of unhealthy products that are contributing to diet-related disease globally. The method we have laid out could be used to identify companies that have conflicts of interest when it comes to engaging with governments and organizations on issues of policy and regulation.

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Trolley Trends: Shifting the nation towards healthier shopping

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Background: Non-communicable diseases (NCDs) including cardiovascular disease, cancer and type 2 diabetes lead to adverse health outcomes and higher rates of mortality. A known cause of NCDs is the high consumption of foods high in fat, sugar and salt (HFSS). This research aimed to explore food purchasing behaviours and attitudes towards healthier alternatives to HFSS products.

Methods: Data from an online, nationally representative, UK-wide survey (N=4,034) was collected by YouGov on attitudes, perceptions and behaviours towards topics such as perceptions of ‘healthy eating’, food swaps, special offers and nutritional labelling (June 2022). Additionally, six 90-minute online text-based focus groups (N=51) were conducted in July 2022 by YouGov using members of their panel and the data was interrogated for themes.

Results: Time, effort required, accessibility and illness were all reported as barriers to consuming a healthy diet. Taste (34%), price (22%) and quality (17%) were most frequently endorsed as factors determining food choice over perceived healthiness (14%); however, older adults (55 years+) were more likely to regard healthiness an important consideration. A preference was shown towards swapping to a healthier version of the same product (vs. a different product entirely) and the availability of special offers and price reductions would act as a facilitator for swapping. Food labelling, including recommended portion sizes, were perceived as confusing and consequently often ignored.

Conclusions and implications: To encourage healthier purchasing behaviours in supermarkets and online, healthier food and drink alternatives need to be in competitive positions, competitively priced through the use of special offers and promotions and offer appeal by being marketed as tasty (rather than healthy). Nutritional labelling must be clearer and more consistent across products, and portion sizes should better reflect real life practices to better promote engagement with healthier food choices.

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De-implementation of inappropriate Androgen depravation Therapy before surgery to treat prostate cancer: the development of a theory-based behavioural intervention with an expert group

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Background: To ensure prostate cancer patients have the best treatments and outcomes, their care needs to be based on the best available evidence. Prescribing Androgen Deprivation Therapy (ADT) before surgery in patients with high-risk localised prostate cancer is incongruous with current guidelines (Mottel et al., 2023, European Association of Urology Guidelines). To overcome this issue, we took a behavioural theory approach to identify underlying behavioural influences on ADT practice and develop an intervention to address the inappropriate use.

Methods: Candidate behavioural change techniques (BCTs) were identified by mapping relevant domains of influence from the Theoretical domains framework onto the BCT Taxonomy (Michie et al., 2013). 15 BCTs were prioritised and presented to an expert group of behavioural intervention developers. A nominal group technique allowed generation and discussion intervention ideas and applications. Following the session, the intervention developers were asked to rank their confidence in the effectiveness of the collated ideas.

Results: Twelve BCTs (of 15) were deemed important to take forward in the intervention design. Interventions developers identified the need to target the patient and the healthcare professional, especially for de-implementation. There was also discussion about what BCTs or applications could be considered in a resource-limited setting (as experienced during COVID-19). Five ideas were generated and ranked in order of perceived effectiveness: (1) Improving the consultation; (2) Computerised Decision Support with substitution suggestion; (3) Expert seminar: Discussion of two prominent urologists; (4) Case study Workshop; (5) Audit and feedback.

Conclusion(s): A nominal group technique was used to identify and prioritise intervention content to reduce unnecessary ADT use. Developers generated five ideas to apply the 12 prioritised BCTs. Ranking of the ideas allowed selection of which ideas to develop further. The developers also provided considerations of who should benefit and where efforts should focus.

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Acceptability of using Artificial Intelligence in the NHS Breast Screening Programme across the Eligible Population: A Questionnaire Survey

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Background: The integration of AI tools in breast screening promises to improve outcomes by reducing radiologist burden and improving accuracy in the detection of cancers. Ensuring public acceptance is crucial for maintaining confidence in healthcare services and ensuring widespread engagement. An early understanding of public acceptability will be essential for the responsible and ethical deployment of AI in the NHS breast screening programme (NHSBSP).

We have developed a survey to estimate the prevalence, and socio-demographic correlates, of different beliefs and levels of acceptability of AI being used in the NHSBSP within the mammogram reading process. The survey will also investigate whether population sub-groups have lower acceptability, greater concerns or for whom uptake might be more greatly impacted – important for identifying whether AI deployment could exacerbate inequalities.

Methods: We will be conducting an online population-level survey with a target sample of ~3600 people eligible for breast screening (50 to 70 years old) or approaching eligibility (45 to 50 years) living in England.
We have developed a survey able to capture acceptability and attitudinal data specific to our AI use case and tailored to the target population. Twelve focus groups with 64 women in the target group were used to inform the survey content. Three rounds of cognitive interviews with 12 participants in the target group were used to test and refine the survey.

Results: Early survey results will be available end of February. We will also report on the development and testing of the survey, and the resulting acceptability and attitudinal items.

Conclusions and implications: Findings from the survey will provide invaluable evidence to inform any future roll-out of AI in the NHSBSP to minimise adverse impact, particularly in terms of social inequalities. The study methodology and findings will also be important for acceptability research surrounding healthcare AI more broadly.

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Inequalities in healthcare access, experience and outcomes in adults with Inflammatory Bowel Disease: A scoping review

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Background: Inflammatory Bowel Diseases (IBD) are long-term conditions requiring lifelong access to, and interactions with health services. Accumulating evidence of inequalities in health care access, experience and outcomes for individuals with IBD is apparent. However there is no existing review that systematically maps and describes these inequalities.

Methods: A scoping review was conducted to retrieve English written quantitative, qualitative, and mixed methods articles published between 2000 and 2023 from EMBASE, Medline and CINAHL.

Results: 1343 records were identified. 51 studies met the criteria for inclusion. Studies addressed ethnic disparities of healthcare (33/51), inequalities driven by socioeconomic differences (12/51), rurality (7/51), gender (3/51), age (2/51), culture (2/51), literacy (1/51) and sexuality (1/51). Poorer health outcomes (42/51 studies) were described in those from Black, Asian, and Hispanic ethnic groups in relation to hospital admission, readmission, emergency room attendance, length of stay, IBD-related complications, post-operative complications, treatment delay and length of stay. Deprivation, insurance status in US populations, rural location and age also affected outcome. Access inequalities (24/51 studies) were described to services, therapies and surgery but also to educational opportunities. Poor experience of care (8/51 studies) included appointment issues, lack of cultural understanding and fragmented care. A lack of research was found in the LGBTQIA+ community (1/51). No research was found to investigate inequalities in IBD patients with learning disabilities or autism.

Conclusion: Inequality affecting a wide range of population characteristics affects outcomes, access and experience in IBD care. Services need to be organised and delivered in a way that addresses this. Further research, including qualitative methods, is particularly needed to understand health experiences of underserved patient populations with IBD. The lack of research amongst LGBTQIA+ individuals, and with learning disabilities, poses a risk of creating inequalities within inequalities.

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A conceptual model of food insecurity interventions

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Background: Interventions that aim to reduce food insecurity offer a variety of the services, such as emergency food packages or social eating spaces. This coupled with the geographical variation in what services are available in different areas, makes accessing the impact of food insecurity interventions challenging. To overcome these challenges, a mathematical model is being developed to estimate the costs and benefits of food insecurity interventions. This work aims to construct a conceptual model of food insecurity interventions. This model endeavours to describe the relationship between individual, household and environmental factors and the likelihood of an individual using a food insecurity intervention. This conceptual model will then be used to construct a mathematical model that will be used to assess the effectiveness of interventions.

Methods: The conceptual model has been developed by reviewing relevant literature, specifically looking for evidence on what types of food insecurity interventions there are, mechanisms of how the food insecurity interventions might work and what characteristics individuals who use food insecurity interventions have.

Results: A conceptual model has been developed to describe a broad range of reasons why people may or may not choose to use a food insecurity intervention such as a food bank or food pantry scheme. This includes variables such as the perceived social acceptability of the intervention and the geographical variability of access. There will be different levels at which variables can act, for example it might be an individual, a household or an environmental level factor.

Conclusions and Implications: This conceptual model provides an important first step to develop a model to assess the effectiveness of different food poverty interventions aiming to reduce food insecurity. The addition of a broad range of factors in the conceptual model will allow a deeper understanding of the estimated impact of food insecurity interventions.

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Exploring the rehabilitation and support needs of people living with myocardial ischaemia and no obstructive coronary arteries

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Background: Myocardial ischaemia and no obstructive coronary arteries (INOCA) affects up to 2 in 5 people who present with chest pain. In contrast to obstructive coronary artery disease, where men are more likely to be affected, INOCA disproportionally affects women, particularly between the ages of 45-65. People living with INOCA are not routinely offered cardiac rehabilitation and their needs have been under-researched to date. This study aimed to explore how cardiac rehabilitation programmes may need to be modified to effectively support them.

Method: Semi-structured interviews were undertaken via telephone or video call (n= 17) with people living with a confirmed or presumed diagnosis of INOCA. Interviews were audio recorded, transcribed and analysed using inductive thematic analysis.

Results: Participants were mainly female (88%), mean age 54 years with a presumed or confirmed diagnosis of INOCA. Five themes were identified: Theme 1 highlights prerequisites to offering cardiac rehabilitation to people with INOCA including professional training, evidence-based guidance and patient involvement in programme design. Theme 2 illustrates how referral to cardiac rehabilitation requires consideration of trauma-informed approaches and understanding of episodic symptoms. Theme 3 emphasises the need for an individualised, flexible approach to enable development of a personal cardiac rehabilitation plan. Theme 4 outlines necessary modifications to existing cardiac rehabilitation and additional components including female-specific issues and relationship support. Theme 5 explores meaningful outcomes from cardiac rehabilitation and long-term support needs for people living with INOCA.

Conclusions and implications: People with INOCA are willing to engage with cardiac rehabilitation and express a desire for more support. Concerns exist around a lack of professional knowledge and evidence-based guidance regarding the management of INOCA. More research is needed to establish safe and acceptable cardiac rehabilitation support for people with INOCA.

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A qualitative study of reasons for non-participation in bowel cancer screening in the Northwest and West Midlands to inform intervention development

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Background: The Northwest and the West Midlands sees some of the lowest uptake of bowel cancer screening in England. This study aimed to understand and theme reasons for non-participations in bowel cancer screening to support the development of interventions to increase participation of first-time receivers (FTR) and never responders (NRs).

Methods: Semi-structured depth interviews (30-45 minutes) with people aged 56-74 in the West Midlands and Northwest, who had never taken part in bowel cancer screening before March 2023 (FTRs and NRs). Data was analysed thematically to identify key themes within the interview data.

Results:
Analysis identified three overarching reasons for the majority of people, which included:

1. ‘avoidant’, evidence for some participants this was driven by fear and closeness to cancer;
2. ‘not for me’ normally as a result of a lack of awareness of the test being for people who are asymptomatic and feeling they are in good health so no need to be tested;
3. ‘not a priority’ which were a group who could be categorised as busy but also did not prioritise their own health against other competing demands or BCS in the balance with other health conditions.
   These reasons did not sit isolation evidencing the complex reasons for non-participation.

Conclusions and implications: These results have supported reasons for non-participation in bowel cancer screening are complex, and the themes generated could help to identify key areas to focus interventions in order to increase uptake in non-responders through increasing the perceived urgency, raising awareness of the relevance of the test being for those without symptoms and providing prompts and cues to encourage people to remember to complete the test even if they delay. Although the sample provided detailed data, further research may be required with other groups including minority ethnic groups to consider how widely applicable this is.

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Testing the potential impact of health communications to raise awareness of the relative risk of age and cancer: a qualitative study

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Background: The Cancer Research UK Cancer Awareness Measure Survey (2022) found older age as a risk factor for cancer to be low (around 2–4% across UK nations). However, 89 in 100 cancers are in those aged 50 years and older, and the majority of health-communications are targeted to these higher risk groups. This research aimed to understand the potential impact on health behaviours of communicating messages on relative increased risk of cancer with older age on participant’s capability, motivation, and opportunity (COM-B model) in relation to positive early diagnosis health behaviours (body-vigilance, cancer screening).

Methods: 60 minute semi-structured paired-depth interviews with people aged 25 to 74 from across the UK (20 pairs; n=40; age: Mean = 58·5 range 25–74; 19 [47%] men and 21 [53%] women; 27 [67%] White and 13 [33%] from Black or Asian minority ethnic groups). To assess potential longer-term impact, participants completed a survey 2 weeks later on self-reported actions taken as a result of the messages tested. Data were analysed using rapid thematic techniques and a framework analysis style assessed themes against capability, opportunity, and motivation (COM-B model).

Findings: Message 2 was the most preferred, as it was clear and easy to understand. Results suggested that including this messaging in health campaigns could encourage some positive early diagnosis heath behaviours. Results overlayed with COM-B, identified messaging could support behaviour change by increasing awareness (psychological capability), providing a social cue (social opportunity), and encouraging emotions related to not wanting to get cancer or that they should be doing specific behaviours (reflective motivation).

Interpretation: Findings suggest communicating this message might have a positive effect on help-seeking behaviours in older adults (people aged 50 and above) However, considerations include ensuring that the message is clear and understandable and that it doesn't induce fear as well as study limitations.

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Development and Evaluation of mass media campaign of early cancer diagnosis, targeting older adults in Northern Ireland: a cross-sectional study

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Background: Cancer Research UK ran a mass-media campaign for 6 weeks from Sept 1, 2022, to Sept 13th, 2022 targeted to people aged 50 years and older and from a lower social-grade (C2DE) in Northern Ireland. The campaign was developed to target barriers to help-seeking for the target audience and evaluated to assess impact on barriers and self reported help seeking behaviours.

Methods: We ran cross-sectional surveys that collected data from independent participants before the campaign (wave 1; n=1262; July 18–Aug 31, 2022) and after the campaign (wave 2; n=1250; Oct 3–Nov 3, 2022; N=2512). After wave 2 the sum of both waves age range was 16–94 years (Mean = 51) and gender breakdown was 46% male (n=1152), 54% female (n=1356) and <1% other (n=3). Data were analysed in SPSS.

Findings: 82% of the targeted audience (N = 451) reported remembering the TV campaign. Significant differences were found for: 'worried about wasting the health services time' (H(1)= 6.222, p =.013), 'I didn't want to make a fuss' (H(1)= 4.721, p =.030), and 'I thought the symptom was related to a pre-existing illness' (H(1)= 14.731, p <.001). Participants who reported experiencing a symptom (wave 1 n=327; wave 2 166) were less likely to report that they did not seek help from their GP or doctor in wave 2 (wave 1 48%; wave 2: 38%; H(1) = 4.520, p =.033).

Interpretation: Decreases in barriers reported "nothing putting them off seeking help" and decreases in not seeking help from a GP or doctor to help seeking for actual symptoms experienced suggests this campaign might have resulted in some positive shifts in self-reported help-seeking behaviours for actual symptoms. However, these findings should be interpreted in light of the limitations of this research.

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Impact of lower-limb amputation in young people: Can the Trinity Amputation and Prosthesis Experience Scale measure Impairment, Activity Limitations and Participation Restrictions with discriminant validity?

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Background: Lower limb amputation can have a significant impact on quality of life. The WHO's International Classification of Functioning, Disability and Health, a frequently used model of health outcomes, has the potential to develop our understanding of the impact of lower-limb amputation. The ICF identifies three outcomes for any given health condition, namely, impairments to body structure and functions, activity limitations and participation restrictions. To use the ICF to understand how lower limb amputation affects each health outcome we need to be able to measure each outcome with discriminant validity. This study assessed whether the items in a frequently used measure of the impact of amputation, the Trinity Amputation and Prosthesis Experience Scale (TAPES) can be used to measure impairments, activity limitations and participation restrictions with discriminant validity.

Methods: An online discriminant content validity (DCV) study of the TAPES: 15 participants judged whether each of the 53 items from the TAPES was a match to each of the WHO provided definitions of impairment (I), activity limitations (A) and participation restrictions (P) (match/no match) and then rated their confidence in each judgement (0-100%). One-sample Wilcoxon signed rank tests, with Hochberg correction for familywise error, were used to classify each item to one of the seven combinations of ICF constructs (I, A, P, IA, IP, AP, IAP).

Results: Thirteen items were classified as impairment only, 10 items as activity limitations only and 1 item as participation restriction only and thus 24 items can be considered to have DCV. Eight items were classified to more than one construct and there was no agreement for 21 items.

Conclusion: The TAPES can measure the 3 ICF outcomes with discriminant validity. The TAPES can be used to investigate the factors that affect each outcome and the relationship between them without measurement confound.

Valuing behavioural interventions for obesity reduction: A scoping review of economic models

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Background: Policymakers require health economic modelling to guide their decision-making over the choice of interventions for obesity. This scoping review was undertaken to report on the health economic models in use for estimating the value of behavioural interventions (individual or population level) for obesity reduction over the long-term.

Methods: Electronic databases (MEDLINE, Embase, PsycINFO, EconLit and Web of Science) were searched in May 2023 for publications meeting inclusion criteria: studies incorporating economic modelling of behavioural interventions/policies for the management or prevention of obesity, reporting health effects and costs for a time horizon of at least ten years, published on or after 1.1.2015. Data were extracted in duplicate by two reviewers. The study protocol was registered before data collection commenced.

Results: Seventy-three studies were included in the review from the 2964 records returned by the search strategy. The studies used 44 health economic models between them. When considered against the expert recommendations for modelling of this type, only four models (9%) met all five key elements. The element most commonly unfulfilled was the use of a microsimulation modelling approach (41%, n=18), followed by model validation (46%, n=20). A majority of models met each of the other elements: use of a lifetime horizon (59%, n=26), inclusion of key health events (66%, n=29) and a risk equation approach to event simulation (71%, n=31). In addition, under half of the studies considered health inequalities in their reporting.

Conclusions and Implications: Continued proliferation of models with inadequate time horizons, breadth of obesity-related health conditions, and perspectives on costs and outcomes, risks underestimation of the benefits of longer-term interventions and their impacts on health inequalities. If obesity behavioural intervention development and the associated modelling of long-term outcomes are approached collaboratively, then consensus on comprehensive modelling could support more effective decision-making in the obesity policy approach.

The effect of comic and written narratives on organ donation discussion and registration among the Muslim adult population in the UK: a randomised controlled trial

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Background: UK minority groups have low organ donation (OD) rates and are less likely to discuss OD with family. This study examined the effect of a comic intervention designed to supplement NHS Blood and Transplant (NHSBT) information regarding OD within the Islamic faith on the discussion/registration intentions and behaviours of UK-based adult Muslims.

Methods: An online randomised controlled trial was conducted via Prolific (September to November 2023). 286 Muslims (mean age =30.97; 42% female) were assigned to one of three study arms: (1) NHSBT website information only (n = 92) (2) NHSBT information and written narrative (n = 88); (3) NHSBT information and comic narrative (n = 106). Donation registration and discussions with family were measured immediately post-intervention (T1: intentions, 1 strongly disagree to 7 strongly agree) and at one-month follow-up (T2: behaviour, 4-6 options). Trial registration: ISRCTN64302161.

Results: T1: Intention to register a decision within the next month was low with no between-group differences for opt-in (m = 2.60, 2.62, 2.59; F(2, 265) =.010, p =.990) or opt-out (m = 2.95, 2.72, 2.56; F(2, 214) = 1.27, p =.284). Intention to discuss with family was more positive but again no significant difference between study groups was found (m = 5.03, 4.61, 4.80; F(2, 283) = 1.61, p =.202). T2: there were no association of condition with a) OD (including opt-in and opt-out) registrations (x2(4) = 2.43, p =.658) or b) discussion with family about OD wishes (x2(4) = 4.84, p =.304).

Conclusions and Implications: Comic narratives did not impact the intentions or behaviours of adult Muslims regarding OD decisions or discussions with family. Currently, NHSBT are not encouraged to supplement their standard online information. Further work to develop and evaluate the intervention materials, such as in a community setting, is needed.

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Application of the behaviour change wheel in an antimicrobial stewardship intervention in primary care

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Background: Antimicrobials agents are essential in treating infections, but overuse and inappropriate prescribing have contributed to the rise of AMR. In the UK, primary care prescribers account for a significant portion of antibiotic prescriptions, often for conditions that don't require them. AMR poses a severe threat to healthcare, with millions of deaths globally and escalating costs. This study focuses on addressing the global issue of antimicrobial resistance (AMR) through the application of the Behaviour Change Wheel (BCW) and the Theoretical Domains Framework (TDF) to understand and modify antibiotic prescription behaviors in primary care settings. This pilot study aims to test the feasibility of applying the BCW to existing antimicrobial stewardship interventions. Specific objectives include understanding the presence/ salience of socio-cognitive influences on prescription behaviours of primary care and developing an antimicrobial stewardship intervention on appropriate prescribing using the behaviour change wheel. The study also assesses the feasibility of an online delivered antimicrobial stewardship intervention on the behaviours of primary care prescribers in selected General Practitioner surgeries.

Methods: This empirical study involves three phases namely pre-intervention, intervention, and post-intervention. Pre-intervention involves selecting GP surgeries, collecting baseline data, and conducting a survey to identify salient factors influencing prescription behaviors. The intervention phase includes reinforcing routine antimicrobial audits and feedback with behavior change techniques. An endline survey will be conducted during the post-intervention phase to assess the impact of the intervention.

Results: We will share the findings from our scoping review on antimicrobial stewardship and infection prevention interventions, a systematic review on socio-cognitive determinants for antibiotics prescribing in primary care, and our baseline survey findings for prescribing habits in primary care.

Conclusions and implications: The findings will contribute to strengthening existing antimicrobial stewardship interventions in primary care using behaviour change techniques for sustainable change relating to antimicrobial prescribing.

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Development of the Fagerström Test for Nicotine Dependence-Indonesian Version

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Background: The Fagerström Test for Nicotine Dependence (FTND) is utilised globally to assess nicotine dependence but has not yet been adapted for use in Indonesia. The present study investigates the cultural appropriateness of the FTND and explores the psychometric properties of the instrument for assessing nicotine dependence in the Indonesian population.

Methods: The initial FTND-Indonesian Version (FTND-IV) was developed by a systematic translation process (forward-backwards translation) into the Indonesian language involving six translators. Three translators with a psychology background translated the FTND from English to Indonesian and the other three native English speakers who speak the Indonesian language conducted the back-translated process. The FTND-IV was then administered to 3079 young adult smokers across Indonesia with diverse and varied socio-cultural backgrounds. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used to understand the reliability and validity of the new scale.

Results: In the translation process, compared to the original version, there is no format, and instruction needs to be revised. The FTND-IV has a bifactorial structure, where item 3 and 5, such as “Do you find it difficult to keep from smoking in places where it is not allowed?” represents morning smoking. Items 1,2,4, and 6, such as “Which cigarette would you hate most to give up?” represent smoking patterns. The model exhibited Chi-squared = 93.891 with p = <.001, Comparative Fit Index (CFI) = 0.957, Tucker-Lewis Index (TLI) = 0.920, and Real Mean Square End of Approximation (RMSEA) = 0.059, demonstrating that the model fit adequately. The FTND-IV has a moderate level of internal consistency, which was 0.606.

Conclusions and implications: This study provides evidence to support the reliability and validity of the FTND-IV. This instrument could be used by clinicians and researchers as a tool to assess nicotine dependence among individuals in or from Indonesia.

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Process evaluation of an app-based intervention with behavioural support to promote brisk walking in people diagnosed with cancer

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Background: The APPROACH pilot study tested an app-based intervention with brief habit-based behavioural support intended to increase brisk walking in people diagnosed with cancer. This process evaluation of aimed to assess implementation of the intervention and to understand the mechanisms of impact and contextual factors influencing intervention engagement.

Methods: Participants with breast, prostate or colorectal cancer who reported not meeting the UK guidelines for physical activity were recruited from a single hospital site in Yorkshire. Participants were randomised to intervention or control (usual care). Intervention participants received an informational leaflet promoting brisk walking and recommending the use of an app (‘Active 10’), two behavioural support calls, and weekly walking planners. Assessments at 0 and 3 months were explored descriptively and included accelerometer-measured brisk walking and online questionnaires assessing health and psychosocial outcomes, habit-strength, and engagement with the intervention. Intervention calls were recorded, and delivery fidelity of 25 behaviour change techniques (BCTs) were assessed on a scale from 0-5. Exit interviews explored intervention engagement and were analysed using thematic analysis.

Results: Ninety participants were recruited. The intervention group (n=44) increased their weekly minutes brisk walking by 65 compared to 26 in the usual care group (n=46). The overall mean delivery fidelity score across all BCTs was 4.2. Engagement with the intervention was high: 98% received an intervention call, 78% reported reading the leaflet, 96% reported downloading the app, and 83% reported using the planners. Qualitative interviews (n=36) identified mechanisms including habit formation and behavioural monitoring and contextual factors impacting engagement such as receiving support from others.

Conclusions and implications: The APPROACH intervention was successfully implemented and shows promise for increasing brisk walking through promoting habit formation and enabling self-monitoring. Contextual factors such as support may impact intervention outcomes and should be considered in future research and intervention design.

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Behavioural Insights: Understanding the Complex Health Needs of People Associated with Drug/Alcohol Misuse

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Background: The North East of England has worse health outcomes, the highest drug and alcohol use rates, high rates of drug related deaths, and greater inequality impacts compared to the rest of England. Working in partnership with public health, substance misuse service providers, wider health partners, and service users, this research aimed to understand factors impacting service users' health and well-being and identify barriers and facilitators to meeting these needs.

Methods: Evidence gathering utilised a mixed methods approach, including tailored behavioural insights surveys and semi-structured interviews with service users and local service providers/partners. Quantitative data was analysed descriptively and qualitative data with reflexive thematic analysis. Data were triangulated and a socio-ecological framework via a PESTLE analysis was applied to frame and synthesise the findings.

Results: The highest rated priority areas were respiratory, infectious diseases, liver conditions, overdose and negative drug interactions, and mental health issues. Engagement and satisfaction with specialist substance use services were high. Still, barriers to accessing primary and secondary care for long-term health conditions, dental treatment and mental health support including during times of crisis were frequently reported, often leading to contact with emergency services. The location of secondary care services, financial pressures, difficulties booking appointments including issues of digital literacy, and lengthy waiting times reduced engagement with healthcare providers. Barriers were influenced by service users' low internal motivation, fear, negative healthcare experiences and stigma, while outreach, cross-sector working, supportive professionals and positive environments facilitated engagement.

Conclusions and Implications: To meet the unique needs of service users and enhance their engagement, we must strategically co-locate services, mitigate issues surrounding stigma, address disparities in service delivery, and enhance the awareness of health and social care professionals regarding the specific health needs and barriers faced by individuals dealing with problematic drug and alcohol use.

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EAGLE - Golf for Heath: Assessing the feasibility of a social prescribing golf scheme in Fife

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Background: Physical inactivity has significant adverse consequences for peoples' health and wellbeing, yet it continues to be a global issue. Participation in golf is being considered as a possible solution to improving inactivity, as evidence shows it has been shown to increase physical activity levels, cardiovascular health, and improve social connectedness (Murray et al, 2017). Recent research has suggested that the benefits of golf could be utilised through social prescribing schemes, however, it is unclear how this connection pathway between primary care and golf clubs may work in practice. This study explored the feasibility of a social prescribing golf scheme in Fife.

Methods: Two focus groups (n=9) were conducted and survey data was collected (n=45) from participants, community link-workers and healthcare professionals, following participant's involvement in a six-to-eight-week 'Golf for Health' social prescribing programme. GP practices in Fife were invited to take part in the pilot study, with participating practices linked with four local golf clubs offering a six-to-eight week, free-of-charge programme. The focus groups aimed to explore how well the intervention was received and the extent to which it met participant needs, as well investigating the barriers and facilitators of the scheme and physical activity in general, whilst survey data also gained insights from those involved in the social prescribing process. Transcripts were analysed using thematic analysis.

Results: Three overarching themes were found, representing; the pathway and sign-up process, barriers and facilitators and outcomes and experiences related to the programme structure.

Conclusions & Implications: Overall responses were positive, with reports that participation was generally beneficial. 'Golf for Health' may offer an accessible and social introduction to golf, which may provide long-term health and wellbeing benefits for patients across Fife. More work is needed on developing connection pathways that are acceptable and feasible in practice.

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Assessing the effectiveness of behavioural and psychosocial interventions for improving sleep hygiene in adolescents: A systematic review and meta-analysis of interventions and behaviour change techniques

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Background. Sleep difficulties in adolescents is a large public health concern. With many underlying mechanisms to sleep suggested to be modifiable, they may be targetable within behavioural and psychosocial interventions. The aim of this review was to evaluate the efficacy of behavioural and psychosocial interventions for improving sleep hygiene in adolescents, aged 10 – 19 years old. This was achieved by 1) a systematic review of research, with data extracted to explore improvements in sleep and wellbeing, 2) coding behaviour change techniques (BCTs) and 3) comparing outcomes with BCTs and intervention used to explore how sleep may be improved.

Methods. Several databases were searched including Medline, Embase, PsycINFO and CINAHL using key words relating to behavioural and psychosocial sleep interventions in adolescents. Behaviour Change Techniques (BCTs) were identified and coded using the BCT Taxonomy and the Behaviour Change Wheel.

Results. A total of 2169 records were screened with 29 studies included within this review. Interventions varied in whether they were adolescent-only, parent-only or collaborative, with a range of theories and modalities used including CBT-i, sleep promotion and meditation. The most frequently used BCTs across studies were “credible source”, “habit formation”, “behaviour substitution”, “restructuring the physical environment” and “prompt self-monitoring of behaviour”. Meta-analyses explored primary and secondary outcomes.

Conclusion and Implications. This review provides further information as to the specific formats of intervention and their associated behaviour change techniques which result in positive outcomes. A holistic approach was most effective, utilising behavioural techniques and strategies to improve psychological and physical wellbeing. Having clear behavioural and outcome goals, plus action-plans was beneficial to encourage commitment, utilising parents to support implementation. Findings from this review can help to inform future sleep interventions, suggesting behavioural and psychosocial components which can result in long-term improvements in sleep and wellbeing at a crucial stage of development.

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