Book of Abstracts

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Prize presentation from AAAPC 2021 (Australasia)

Shared decision support for patients. An antimicrobial stewardship strategy to promote appropriate antibiotics use in primary care

Presenter: Ruby Biezen

Co-authors: Dr Ruby Biezen1, A/Prof Jo-Anne Manski-Nankervis1, Ms Kaleswari Somasundaram1, Prof Kirsty Buising2,3

Institutions: Department of General Practice, The University of Melbourne, Melbourne, Victoria, Australia. National Centre for Antimicrobial Stewardship, The University of Melbourne, Melbourne, Victoria, Australia. Victorian Infectious Diseases Service, The Royal Melbourne Hospital, Melbourne, Victoria, Australia.

Abstract

Problem:

Judicious use of antibiotics can limit the emergence of antibiotic resistance in pathogens and help to reduce adverse drug events. This is especially important if they are being prescribed for people unlikely to benefit from them. Providing patients with information about non-antibiotic management strategies, and when to consider antibiotics is important. Decision making can be supported using tools to guide discussion and promote a shared understanding between health professionals and patients. In October 2019-March 2020, we co-designed seven patient information sheets for common infections to support antimicrobial stewardship in primary care (addressing acute bronchitis, middle ear infection, nose & sinus infection, sore throat, urinary tract infection, cellulitis and leg ulcers). The aim of this study was to pilot the use of these information sheets for their acceptability and feasibility in general practice. Approach: Four rural and four metropolitan general practices participated in the pilot study between August-November 2020. Participating general practitioners (GPs) used the information sheets with their patients where they deemed appropriate. Semi-structured interviews were conducted with GPs, practice nurse (PN) and patients to explore acceptability and usability of the information sheets. Data were analysed thematically. Findings: 14 GPs, one PN and 13 patients participated in the interviews. Participants found the information sheets well designed, visually appealing and easy to understand. Patients reported the sheets provided useful information and improved patients' knowledge about antibiotics and infection management. While these tools may not be used with every patient, GPs commented that the information sheets complemented their consultations with an opportunity to provide something to patients rather than an antibiotic script. Although reasons behind using these information sheets were different for participants, they agreed that the content was relevant, and improved patient knowledge of disease conditions, treatment and management options, including when to see a doctor. Implications: The tools provided evidence-based information that was useful for healthcare providers and patients as part of consultations. These may be important resources for peak bodies to consider endorsing, providing, and maintaining in future. The suite might also be expanded to include new conditions.

Prize presentation from NAPCRG 2021 (USA)

1P.2 Doctor-patient communication about blood tests: qualitative interview study in general practice

Presenter: Jessica Watson

Co-authors: Jessica Watson, Chris Salisbury, Willie Hamilton, Penny Whiting, Jon Banks

Institutions: University of Bristol

Abstract

Context:

Shared decision making is widely advocated, however most research focuses on treatment decisions. Evidence for shared decision-making in relation to diagnostic testing is limited to specific tests such as prostate specific antigen, screening and genetic tests. There is a lack of evidence regarding the relevance of shared decision-making to routine blood tests, despite increasing rates of laboratory testing in primary care. Objectives: To explore shared decision making and communication around routine blood tests in primary care. Study design: Qualitative interview study Setting: UK primary care Population studied: Qualitative interviews were undertaken with patients at two time points: (a) at or soon after their blood test and (b) after they had received their test results. We also undertook interviews with the patients' GPs who requested the tests. This gave us paired data which enabled to us to examine areas of congruence and dissonance between GPs' and patients' expectations, experience and understanding of testing. A total of 80 interviews with 28 patients and 19 doctors were completed, reflecting a range of socioeconomic and demographic characteristics. Interviews were digitally recorded, transcribed and analysed using thematic analysis using a mixture of inductive and deductive coding and constant comparison. Results: There were no examples of shared decision making identified in any of the interviews, indeed patients were frequently unaware of which blood tests had been done and why. Barriers to a shared understanding of blood testing were identified including the complexity and technical nature of information, a lack of resources for information sharing and a perception that blood tests were low priority for information sharing. Doctors perceived that a paternalistic approach to testing could be justified to protect patients from anxiety. Misunderstanding and a lack of communication around testing and test results led to uncertainty, anxiety and frustration for patients. Conclusions: The results have implications, not just for models of shared decision making, but more fundamentally, informed consent. Shared decision-making for diagnostic testing differs from treatment decisions. Promoting a shared understanding and shared decision-making could help rationalise testing, potentially reducing unnecessary investigations and improving patient-centred care.

Presentation selected by ASME for the joint session SAPC/ASME

1J.1 Surfacing the delivery of Year 3 undergraduate teaching in the context of a Longitudinal Integrated Clerkship (LIC): Cardiff School of Medicine Community and Rural Education Route (CARER)

Presenter: Catherine Chapman

Co-authors: Dr Katie Webb, Dr Susan Fish, Dr Ffion Williams

Institutions: Cardiff School of Medicine Community and Rural Education Route (CARER)

Abstract

Background:

Cardiff's fully dispersed immersed (Worley et al. 2016) Year 3 longitudinal integrated clerkship (LIC) scheme, known as CARER, has run in two hubs (Bangor and Aberystwyth) since 2018. Students are embedded within a GP practice for 10 months. Many purported educational benefits of LICs include educational continuity, following the patient journey over time and forming stronger, more trusting relationships with patients and GP tutors (Bartlett et al. 2019; Webb 2020). While Cardiff's longitudinal evaluation shows CARER students' Progress Test scores are comparable with Year 3 students on the main programme (Webb 2020), little is known about the various teaching and learning approaches used to help students achieve this knowledge. Aims: The main aims are to establish the teaching and learning approaches used within GP practices, any hospital-based teaching and to explore the role of the hidden curriculum. Methods: This exploratory mixed-methods study will collect both qualitative and quantitative data from students (n~25) and their GP tutors (n~23) enrolled on the LIC September 2021. Online surveys containing both open- and closed-questions will explore teaching and learning approaches, the setting and hidden curriculum. Focus groups will gather personal accounts regarding experiences of teaching and learning. Quantitative data will be analysed using SPSS. Qualitative data will undergo both thematic and narrative analysis. Results: We are currently collecting data and will present findings at the academic meeting.
References: Bartlett, M. et al. 2019. Dundee's Longitudinal Integrated Clerkship: drivers, implementation and early evaluation. Education for Primary Care 30(2), pp. 72-79 Webb, K. 2020. Longitudinal Evaluation of the Community and Rural Education Route (CARER) - Year 2 Report. Report to funder: School of Medicine, Cardiff University Worley, P. et al. 2016. A typology of longitudinal integrated clerkships. Med Educ 50(9), pp. 922-932. doi: 10.1111/medu.13084

Presentation selected by SAPC for the join session SAPC/ASME

1J.2 What is the impact of online community-based multi-disciplinary team simulation, on interprofessional educational competencies, in undergraduate students?

Presenter: Helen Miles and Abhi Jones

Co-authors: Abhi Jones, Amy Parkes, Mary-Clare Davidson, Santhosh Jagadeesh, Helen Miles

Institutions: University of Central Lancashire

Abstract

Problem

Increasing demand and an ageing population, requires health and social care teams who can work collaboratively. Interprofessional Education (IPE) aims to address this need by developing attitudes, knowledge, and skills applicable to collaborative practice, but

creating IPE learning events can be resource intensive, with multiple timetables, and geographical spacing of participants. Online simulation may help alleviate these challenges but is largely focused on acute situations and few studies appear to address large scale IPE, involving multiple professional groups. We aimed to develop a community-based IPE online simulation that gave students experience of collaborative working, within the wider community health and social care multi-disciplinary team (MDT) and had a positive impact on IPE competences.

Approach

526 students, from nine professions (District Nursing, Medicine, Occupational Therapy, Paramedics, Physician Associates, Pharmacy, Physiotherapy, Social work, and Speech and Language Therapy), accessed the Microsoft Teams platform in small MDT groups, to assess a simulated frail patient, who had fallen in the community. Use of a 360 image, embedded with patient information, and collaborative written workspace, augmented the group experience. IPE competencies were assessed before and after the event, using a questionnaire. The questionnaire, based on a reduced item ISVS-21 (Interprofessional socialization and valuing scale – 21), was designed, and mapped to Interprofessional Education Collaborative (IPEC) core competencies, relevant to the event. Likert scales were utilised for 12 items (1= Strongly disagree, 7= strongly agree). Free text reflective questions were included, to provide greater depth to quantitative responses.

Findings

Responses were received from all disciplines (pre-event =149; post-event =198). Cronbach's alpha was 0.921 for the pre-event questionnaire and 0.926 for the post -event. Due to anonymised online questionnaires, pairing was not possible, 10/12 questionnaire items showed significant self-reported improvement in aligned competencies using an independent t-test ($p<0.05$). A significant result was not recorded for importance of team approach and patient involvement in decision making, possibly due to high mean scores in the pre-event questionnaire (6.27, 6.48 vs 6.20, 6.44). Qualitative responses were analysed, through the lens of the IPEC competencies and aligned well, revealing themes of teamwork, communication, confidence in own role and roles of others, an appreciation of shared responsibility, and the benefits of an MDT. Overall, online community-based MDT simulation appears to have a positive impact on self-reported IPE competence in undergraduate students. ConsequencesDesigning and creating high quality IPE is challenging, and online non-acute MDT simulation can help overcome some of these challenges, whilst also having positive impact on IPE competencies. This method has the capability to be applied to a variety of chronic disease and community-based scenarios, in both undergraduate and postgraduate education. More research is needed to discover if confidence in IPE competencies will translate to improved collaboration in the workplace and enhanced patient care.

1A.1 How can GP registrars be supported to develop capabilities in community orientation?

Presenter: Jennifer Lang

Co-authors: Dr Hilary Graffy, Professor Joanne Reeve

Institutions: Health Education England

Abstract

Problem

GP registrars are required to demonstrate capabilities in 'community orientation', reflecting an understanding of their practice community and the social determinants of health and developing and working with services that respond to needs of the practice population. These skills are often viewed as vague and difficult to obtain by both registrars and their supervisors, and the evidence base of how best to support this learning is lacking. In the Yorkshire and the Humber (UK) deanery a novel scheme of community placements was developed, in which all first-year registrars spent two half-days with a community or voluntary organisation of their choosing, working in their practice area. Our study sought to establish if community placements enabled registrars to develop their skills in community orientation and if so, through what mechanisms of learning they were able to achieve this.

Approach

We conducted a qualitative evaluation study with the goal to determine 'merit and worth' in regard to attaining capabilities in community orientation. All GP registrars who undertook the placement were eligible and invited to take part. Face-to-face or telephone semi-structured interviews were conducted with the registrars who responded. Interviews were audio-recorded, anonymised and transcribed verbatim. Interviews were analysed using thematic analysis with a constant comparative approach to describe key themes.

Findings

Twelve of the thirteen interviewees reported that their placements enabled them to attain capabilities in community orientation, including an improved understanding of their practice community and the social determinants of health and by stimulating a more holistic approach to the assessment and management of health needs. Our analysis described five key mechanisms for this learning: building confidence, building networks of practice, gaining novel perspectives, generating a hunger for general practice and through experiential learning. Registrars related the depth of their learning to the ability to learn alongside service users and volunteers in novel contexts. The mechanisms of learning were common to all registrars, regardless of their age, gender, or the deprivation index of their practice. Registrars connected the nature of their learning to their previous experiences in training, with international graduates reporting a substantial amount of novel learning about the context specific determinants of health and services available.

Consequences

Community placements enabled registrars to develop competencies in community orientation through a number of mechanisms of action for learning. This study highlights the value of placements outside of conventional training for the development of holistic professional practice. Educators should consider the role of such placements, which provide opportunities for experiential learning with local organisations supporting communities with issues that are relevant to registrar's everyday practice. Further research should consider the differential needs of registrars in this area and examine the perspectives and experiences of the third sector organisations and service users participating in such programmes.

1A.2 Professional Identity Formation in Becoming a GP Trainer – Barriers and Enablers

Presenter: Kevin McConville

Co-authors:

Institutions: University of Dundee / The Open University

Abstract

Problem

Policy promotes students and doctors becoming GPs yet there exists little focus on GP trainers' recruitment and retention. The aim of this study was to explore barriers and enablers facilitating the professional identity formation of a GP becoming a GP trainer.

Approach

This was designed as a qualitative case study within one programme of the Scottish Deanery. Data were collected between January - November 2018 via semi- structured interviews with 16 GP trainers and 79 regulatory and policy documents. Thematic analysis was applied whilst a reflexive stance as a previous GP trainer was maintained. A theoretical sense of Symbolic Interactionism was maintained. FindingsFindings indicate GPs become GP trainers through experiences and events transitioning across three predominant identities: 'Becoming a Doctor', 'Becoming a GP' and 'Becoming a GP Trainer'. Impediment at any of these stages acts as a barrier. The GP trainer role suggests tendencies for clinicians to be understated in their achievements and abilities. The GP trainer dually enacts and role models that of clinician and teacher; time acts as a significant barrier. The current Scottish Prospective Educational Supervisor Course (SPESC), or previous iterations, is a significant enabler. GP trainer associations with Out of Hours services have changed over time. GP trainer / trainee relationships are essential enablers to a continued GP trainer professional identity.

Consequences

National policy continues to promote medical students and doctors to become GPs, yet little attention is paid to the need to recruit and retain the GP trainers necessary to educate them. GP trainers' professional identity is shaped by combinations of external influences, the GP practice, characteristics of oneself, time and the role of the GP trainer alongside their relationship with their GP trainee. GP trainers are often understated in their excellent abilities to role model clinical activities and teach in tandem; courses such as SPESC are invaluable, as is their practices' support. Deanery assistance can be seen as variable in encouraging GP trainer progression, whilst any acknowledgement of RCGP with respect to GP trainers' professional identity development appears absent.

Funding acknowledgement

This research was done as part of an EdD at The Open University and was partially funded by a grant from the RCGP Scientific Foundation Board.

1A.3 Does training in trauma informed care change healthcare providers' and patients' emotional and cognitive outcomes, or health?

Presenter: chloe gamlin

Co-authors: Shoba Dawson, Umber Malik, Natalia Lewis

Institutions: University of Bristol, Centre for Academic Primary Care

Abstract

Problem

Trauma is defined as an event or circumstance 'experienced by an individual as physically or emotionally harmful or life-threatening' (SAMHSA, 2017). Traumatic experiences increase the risk of a variety of adverse mental and physical health outcomes,

and can result in increased contact with and utilisation of healthcare services. In the last two decades, the trauma-informed approach has gained momentum as a solution to address the high prevalence and adverse health impact of violence and trauma on patients and healthcare providers. A trauma informed approach is a system level intervention that changes culture and practice to create environments and relationships that promote recovery and prevent re-traumatisation among patients and staff. Implementing a trauma informed approach relies on training and workforce development. However, there is a current gap in the evidence for mechanisms of training interventions for trauma informed care and their effect on professional behaviour and practice, as well as patient experiences and outcomes.

Approach

We will carry out a mixed methods systematic review with concurrent quantitative and qualitative analysis, followed by results-based convergent synthesis, into training interventions on trauma informed care for healthcare providers in any healthcare setting. The main outcome measure is any change in healthcare provider or patient behaviour or practice indicating their engagement in the provision of trauma-informed care. Additional outcomes are any healthcare provider or patient psychological outcome indicating their engagement in the provision of trauma-informed care. Examples include changes in knowledge, beliefs and attitudes, confidence, or perception of services. Intervention studies and service evaluations of trauma informed care training interventions of any design will be included, to address the research question: does training in trauma informed care change healthcare providers' and patients' emotional and cognitive outcomes, or health? FindingsWork in progress: interim findings demonstrate substantial heterogeneity in design, content and delivery of trauma informed care training interventions for healthcare providers across a wide range of professions. There is no universal curriculum for trauma informed care, giving rise to this wide variety of training formats. Effectiveness of staff training in trauma informed care does not appear to rely on its duration or intensity, but there is an emerging pattern to suggest that involvement of real or simulated patients within the training intervention has a powerful impact on behavioural and psychological outcomes for attendees.

Consequences

Work in progress: findings from this systematic review have the potential to influence the development of a unified, evidence based, and cost-effective curriculum for training healthcare providers to deliver trauma informed care. In turn, this approach to healthcare has the power to engage and support some of the most vulnerable patients we serve.

1A.4 Enhancing generalist skills to support the primary care workforce in Humber Coast and Vale: The Catalyst programme

Presenter: Myriam Dell'Olio

Co-authors: Stephen Opare-Sakyi, Kerry Leadbetter, Joseph Wall, Joanne Reeve

Institutions: Academy of Primary Care, Hull York Medical School

Abstract

Problem

New to practice (NTP) GPs want to develop a fulfilling portfolio career, yet many report lacking skills and confidence managing the complexity of modern clinical practice. Catalyst is a career development programme that addresses today's primary care challenges and is designed to recruit, support,

and retain NTP GPs across the Humber Coast and Vale area. Drawing on a logic model developed from previous research, Catalyst is an evidence-informed complex intervention delivered using transformational learning theory to project a change in motivation, skills and ways of working. A theory-based evaluation has been conducted to understand if/how Catalyst can support motivation and retention of primary care workforce.

Approach

The evaluation of Catalyst employed a mixed-methods approach informed by Normalisation Process Theory, which describes the dynamics of embedding new ways of working into routine practice. All participants enrolled in the programme were invited to take part in the evaluation. Data collection used multiple approaches including surveys, interviews and focus groups at multiple points in time. Abductive reasoning using constant comparison approaches aimed to identify enablers and barriers to implementing the core concepts of Catalyst into daily practice, and explore health professionals' and career development changes sought.

Findings

When Catalyst started, the delegates described limited access to their community of practice and lack of confidence in the person-centred knowledge work of primary care. Over the course of the programme, they reported feeling more confident in expert generalist practice describing changes in specific areas of work (e.g., medication reviews and care home work), increased sense of purpose and motivation working as a GP (e.g., seeing themselves as future consultants in primary care), and access to an extended network of like-minded peers.

Consequences

The delegates enrolled in Catalyst highlighted the importance of an interactive training programme that addresses the challenges of today's clinical practice. They developed and reinforced shared models of practice by interacting with peers across different practices, and reflecting and applying what they learned to their own practice. As the first cohort of Catalyst started their second year, the evaluation is currently underway to explore the experiences of a second cohort of NTP GPs enrolled in Catalyst.

Funding acknowledgement

Catalyst has been funded by NHS England as part of a wider initiative to support and retain new to practice GPs in the Humber Coast and Vale area.

1A.5 Optimising the transition from selection to licensing in general practice

Presenter: Vanessa Botan

Co-authors: Graham Law, Nicki Williams, Chris Elfes, Kim Emerson, Fiona Kameen, Susan Bodgener, MeiLing Denney, Rich Withnall, Lindsey Pope, A. Niroshan Siriwardena

Institutions: University of Lincoln, Royal College of General Practitioners

Abstract

Problem

The selection process for entry to speciality training for general practice in the UK was changed in 2016 to offer access to a direct pathway (DP) for doctors scoring above an agreed threshold in the computer-marked Multi-Specialty Recruitment Assessment (MSRA). The Selection Centre (SC) for those scoring under this threshold was discontinued due to COVID-19. We aimed to evaluate the relationship between performance at selection and outcomes of general practice (GP) training at licensing, to determine the threshold score at MSRA for optimising

performance at licensing, and to evaluate the value of the SC.

Approach

We used a longitudinal design linking selection, licensing and demographic data from UK doctors entering GP specialty training in 2016. MSRA scores were divided into 12 score bands and SC scores into seven score bands to better identify specific MSRA or SC scores that correspond to better or worse GP training outcomes. Multivariable logistic regression models were used to establish the predictive validity of the MSRA scores and score bands for passing or failing the Membership of the Royal College of General Practitioners (MRCGP) licensing assessments including the Applied Knowledge Test (AKT), Clinical Skills Assessment (CSA) or Recorded Consultation Assessment (RCA), Workplace Based Assessment - Annual Review of Competence Progression (WPBA-ARCP), and performance overall. The model adjusted for gender, ethnicity, country of qualification, and declared disability. Receiver Operating Characteristic (ROC) curves of MSRA scores against performance outcomes were constructed to determine the optimal MSRA threshold scores for achieving licensing. FindingsWe included 3338 doctors who entered specialty training for general practice in 2016 of different sex (female 63.81% vs male 36.19%), ethnicity (White British 53.95%, minority ethnic 43.04% or mixed 3.01%), country of qualification (UK 76.76%, non-UK 23.24%), and declared disability (disability declared 11.98%, no disability declared 88.02%). MSRA scores or score bands were predictive for all GP training outcomes (AKT, CSA, RCA, and WPBA-ARCP). Lower SC score bands corresponded to poorer GP training outcomes but adding SC scores did not change the predictive validity of the MSRA, and therefore the SC did not add further information to MSRA scores. An MSRA threshold of 500 (or, more precisely, 497) was ideal for correctly identifying pass/fail rates on the AKT, RCA, and CSA and only standard outcomes on WPBA-ARCP. Fifty percent of candidates in the lowest two MSRA Bands (i.e., scores below 420) had at least one nonstandard outcome.

Consequences

The optimal MSRA threshold score for achieving licensing was around 500 in this large cohort. The Selection Centre added little to the predictive validity of the MSRA. Doctors admitted to GP speciality training who score below this threshold may need additional support during training maximise their chances of achieving licensing.

Funding acknowledgement

This abstract presents independent research commissioned by Health Education England. The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of Health Education England.

1B.1 Evaluation of a complex intervention to improve antibiotic prescribing for CHIldren presenting to primary care with acute COugh and respiratory tract infection: the CHICO randomised controlled trial

Presenter: Peter Blair

Co-authors: Grace Young, Penny Seume, Jenny Ingram, Clare Clement, Jodi Taylor, Christie Cabral, Patricia J Lucas, Elizabeth Beech, Jeremy Horwood, Padraig Dixon, Martin Gulliford, Nick A Francis, Sam Creavin, Athene J Lane, Scott Bevan & Alastair D Hay

Institutions: University of Bristol, Bristol Trials Centre (University of Bristol), NHS England & NHS Improvement South West, Kings College (University of London), University of Southampton, University of Oxford

Abstract

Problem

Respiratory tract infections (RTIs) in children are common and present major resource implications for primary care. Unnecessary use of antibiotics is associated with the development of antimicrobial resistance. Our aim was to assess whether embedding a multifaceted intervention into general practice for children (aged 0-9 years) presenting with acute cough and RTI would reduce antibiotic dispensing without impacting (non-inferiority) on hospital attendance for RTI.

Approach

The GP-led intervention included: (1) explicit elicitation of parental concerns, (2) the results of a prognostic algorithm to identify children with acute cough and RTI at very low risk of 30-day hospitalisation and unlikely to need antibiotics accompanied by prescribing guidance and (3) provision of a printout for carers including safety netting advice. Intervention practices were compared with usual care over a 12 month period. This phase III 'efficient' trial used routinely collected data at the practice level, thus avoiding individual patient consent and post-randomisation recruitment bias. The intervention was embedded in practices using Egton Medical Information Systems (EMIS) web medical records. The practices were recruited using the NIHR Clinical Research Network (CRN). The co-primary outcomes were the practice rate of dispensed paediatric formulations for all indications of amoxicillin and macrolide antibiotics, and the hospital admission rate for RTIs using routinely collected data by Clinical Commissioning Groups (CCGs). The primary analysis was based on the intention-to treat principle. FindingsOf the 310 practices required 294 (95%) were recruited (144 intervention and 150 controls) representing 336,496 registered 0-9 year-olds (5% of all 0-9 year-old children in England) from 47 CCGs. Included practices were slightly larger, had slightly lower baseline dispensing rates and were more deprived than the English average. Of the 294 practices 12 (4%) subsequently withdrew (6 because of lack of resources during the pandemic). The median number of times the intervention was used was 70 per practice (by a median of 9 clinicians). The antibiotic dispensing rate in the intervention arm (0.155 [95% CI 0.135-0.179]) compared to the control arm (0.154 [95% CI 0.130-0.182]) was not significantly different (IRR: 1.011 (95% CI: 0.992-1.029); p=0.258). Sensitivity analyses (per protocol, excluding pilot practices, by age, clustering at the PCN level) and a priori sub-group analyses (proportion of locums or nurses, practice size, level of deprivation, previous dispensing rates) revealed no strong underlying differences although lower dispensing levels during the pandemic made this difficult to assess. The rate of hospitalisation over 12 months for RTI in the intervention group (0.019 [95% CI 0.014-0.026)]) compared to the control group (0.021 [95% CI 0.014-0.029) was non-inferior (RR: 0.952 [95% CI: 0.905-1.003]).

Consequences

There was no difference in hospitalisation rate or dispensing levels although the rate of intervention usage maybe an explanatory factor.

Funding acknowledgement

This research is funded by the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) programme (funder ref: 16/31/98, ISRCTN11405239). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR o

1B.2 Antibiotic Stewardship: What outcomes should be measured in dentistry?

Presenter: Wendy Thompson

Co-authors: Wendy Thompson, Leanne Teoh, Celine Pulcini, Susie Sanderson, David Williams, Vanessa Carter, Carole Pitkeathley

Institutions: University of Manchester, University of Melbourne, Université de Lorraine, Queen Mary University of London,

Abstract

Problem

Antibiotic resistance is a global public health and patient safety problem. To conserve the effectiveness of antibiotics for future generations, antibiotic stewardship is advocated to ensure their use only where necessary. Dentistry accounts for some 10% of antibiotic prescriptions across global healthcare, with high rates of unnecessary use. Whilst numerous trials of antibiotic stewardship across primary healthcare exist, few studies of dental antibiotic stewardship have so far been published.Core outcome sets are widely used to maximise the value derivable from clinical trials. No core outcome set for antimicrobial stewardship in any part of healthcare has yet been published (or registered as in development). By developing international consensus on a core outcome set for antibiotic stewardship in dentistry, this study aims to produce the first one.

Approach

This core outcome set was developed using DelphiManager, with candidate outcomes from a literature review. International participants (10 academics, 10 dentists and 10 patient-representatives) were recruited via Twitter and FDI World Dental Federation. Outcomes scored 'critical for inclusion' by >70% after two Delphi rounds were included following a final consensus meeting. The full protocol for this study is available at: https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-022-06038-w

Findings

Outcomes relating to antibiotic use (such as rate of prescribing), harms or complications (for example, serious adverse outcomes) and the patient-reported outcome 'ability to carry on with daily life as normal' were included in the core set. Measures of care quality (such as patient satisfaction), time and cost were excluded. Some outcomes (such as time to resolution of symptoms) were excluded from the core outcome set as they are not relevant to both the treatment of dental infections and the prophylaxis of infections associated with operative dental procedures. These outcomes will be highlighted as examples of additional contextual outcomes which researchers may wish to include in their studies, in addition to the core outcomes.

Consequences

Consensus about a core outcome set for dental antibiotic stewardship has been achieved with academic, clinical and patient stakeholders from around the world, covering antibiotic use, complications and patient-reported outcomes. This core outcome set enables researchers of dental antibiotic stewardship to report their study results in a meaningful way, thus supporting the profession to contribute to global efforts to tackle antibiotic resistance.

Funding acknowledgement

This study was funded by FDI World Dental Federation through its Antimicrobial Resistance Programme, which was supported by GSK Consumer Healthcare. The funding body had no role in the design of the study and collection, analysis, and interpretation of data.

1B.3 Intensive antibiotic prescribing and its association with resistant urinary tract infections (UTIs) in the community: a cross-sectional ecological UK primary care-based study

Presenter: Lucy McDonnell

Co-authors: Mark Ashworth, Patrick White, David Armstrong, Stevo Durbaba, Rahul Batra, Jonathan Edgeworth, Patrick Redmond

Institutions: King's College London, Guy's and St Thomas' NHS Foundation Trust

Abstract

Problem

Antimicrobial resistance (AMR) has been identified by the World Health Organisation (WHO) as one of the principal public health problems of the 21st century. Overuse of antibiotics is associated with antibiotic resistance in the community, with primary care practices that prescribe more antibiotics associated with higher antibiotic resistance. There is variation, however, in the distribution of antibiotic prescribing among patients in the community. Previous UK primary care-based research demonstrated that less than 10% of patients received 50% of antibiotic prescriptions, with those patients receiving at least 5 antibiotic prescriptions over 3 years.It is unclear whether variations in the distribution of antibiotics in the community affect local resistance. This community-based study aims to determine the association between (a) overall antibiotic prescribing and UTI resistance, and (b) repeat (intensive) prescribing of antibiotics to individual patients (> 4 antibiotic prescriptions per year) and UTI resistance.

Approach

A repeated cross sectional ecological analysis from 2012-2015, using antibiotic prescribing data from Lambeth DataNet (an anonymised source of coded data from all general practices in Lambeth) and urine culture results analysed by the microbiology department at Guys and St Thomas' NHS Trust and University Hospital Lewisham. We determined the total volume of antibiotics prescribed (number of prescriptions/Average Daily Quantity (ADQ)) and the percentage of patients who received repeat (intensive) antibiotic prescriptions per Lower Superior Output Area (LSOA)/year. Following adjustment for demographic and clinical variables, LSOA level associations will be examined between overall prescribing and intensive prescribing, with same and next year UTI resistance rates, using Poisson regression modelling over 4 years. FindingsInterim results available with analysis underway. The sample includes 294,100 patients (covering 178 LSOAs) and 553,782 antibiotic prescriptions from 2012-2015. Overall UTI annual resistance rates over the study period ranged from 64.7% to 71.5%. 8.5% of the population fulfilled the explanatory variable of intensive antibiotic prescribing (≥4 antibiotic prescriptions/year). Preliminary Poisson regression modelling for 2013 suggests that intensive antibiotic prescribing (≥4 antibiotic prescriptions/year) was independently associated with increased rates of antibiotic resistance in community UTIs. The findings of more detailed regression modelling will be available for the SAPC conference.

Consequences

Reducing AMR is a global priority. There has been very limited previous research regarding the distribution of antibiotic use and its association with resistance, with conflicting interpretations of the results. The results from this research will help determine whether efforts to reduce resistance should focus on reducing antibiotic prescribing in the community overall, or reducing intense prescribing to individual patients.

Funding acknowledgement

Lucy McDonnell is an National Institute for Health Research (NIHR) funded In-practice fellow

1B.4 Antibiotic effectiveness and risk of illness progression for children with lower respiratory infections presenting to primary care: prospective cohort study and trial

Presenter: Paul Little

Co-authors: Paul Little, Taeko Becque, Alastair D Hay,Nick A. Francis,Beth Stuart, Gilly O'Reilly, Natalie Thompson, Kerenza Hood, Michael Moore,Theo Verheij

Institutions: University of Southampton, University of Bristol, University Medical Center Utrecht, Cardiff University

Abstract

Problem

Antibiotic resistance is a global public health threat. Antibiotics are very commonly prescribed for children presenting with uncomplicated lower respiratory tract infections (LRTI) but there is little randomised evidence for children, and randomised trials commonly recruit selected populations. We estimated the effectiveness of antibiotics using both trial and observational data. We assessed the external validity of the STARWAVe prediction rule, and developed a new model to predict illness progression.

Approach

Children aged one to twelve presenting to UK general practices with an acute LRTI were randomised to receive Amoxicillin 50mg/kg/day in divided doses for 7 days, or placebo. Children not randomised (either ineligible or clinician/parent choice) participated in an observational study collecting the same data. Propensity scores controlled for confounding by indication in the observational data. The primary outcome was the duration of symptoms rated moderately bad or worse (measured using a validated diary). Secondary outcomes were reconsultations for new or worsening symptoms; side effects, and illness progression requiring attendance at, or admission to, hospital. Findings432 children entered the trial and 326 children the observational study. The estimate of benefit of antibiotics for the primary outcome were similar for trial alone (trial Hazard Ratio (HR) 1.13, 95% CIs 0.90,1.43) and when also including the observational data HR 1.16 (0.95, 1.41). The STARWAVe model had moderate performance in predicting illness progression (AUROC 0.66;0.50, 0.77). A new, internally validated, prognostic model for illness progression (consisting of 7 variables: baseline severity/respiratory rate (difference from normal for age)/duration of prior illness/oxygen-saturation/sputum-rattly chest/passing urine less often/diarrhoea) had good discrimination (bootstrapped AUROC 0.83) and calibration. A 3 item model (respiratory rate ; oxygen saturation; sputum-rattly chest) also performed well (AUROC 0.81), as did a score (ranging from 19 to 102) derived from coefficients of the model (AUROC was 0.78; 0.68, 0.88): a score of less than 70 classified 89% (600/674) of children having a low risk (<5%) of progression of illness.

Consequences

Amoxicillin for uncomplicated chest infections in children is unlikely to be clinically effective. A simple prognostic score could be useful as a tool to help guide clinical management.

Funding acknowledgement

NIHR

1B.5 Can D-Mannose prevent recurrent UTI? The MERIT (D-Mannose to prEvent Recurrent Urine InfecTions) randomised double blind placebo controlled trial

Presenter: Gail Hayward

Co-authors: Sam Mort, Nicola Williams, Jared Robinson, Julie Allen, Nicola Maeder, Rebecca Edeson, Nicholas Thomas, Alastair Hay, Michael Moore, Christopher Butler

Institutions: University of Oxford, University of Brstol, University of Southampton

Abstract

Problem

Recurrent Urinary Tract Infection (UTI) is a particular challenge for primary care. It causes significant morbidity and reduced quality of life for women and results in repeated antibiotic usage and multi-drug resistance. Prophylaxis with antibiotics is only effective while taken, and the evidence for non-antibiotic prophylactic options is limited.D-Mannose is a sugar which is argued to prevent binding of the E coli type 1 Pili to urothelial cells. It is an expensive food supplement not available on prescription. Evidence from a small open label trial in a restricted population was encouraging, but better evidence is needed to guide clinicians and policymakers. We aimed to assess the effectiveness of daily use of D-mannose compared with placebo in preventing symptomatic UTI in women with recurrent UTI.

Approach

In this two-arm individually randomised double-blind placebo-controlled trial we included women who had had at least 2 UTis in the previous 6 months or 3 in the previous year. Women who were pregnant, breastfeeding, catheterised or who had recently started prophylactic antibiotics were excluded. Participants were randomised to 6 months of daily D-Mannose powder (2 grams) or placebo. The primary outcome was the proportion of women experiencing at least one further episode of clinically suspected UTI for which they contact ambulatory care within 6 months of study entry. Secondary outcomes included symptom burden, antibiotic usage and microbiologically proven UTI. Findings598 women (295 placebo, 303 D mannose) were recruited between May 2019 and January 2020 with 289 and 294 respectively included in our intention-to-treat analysis. Baseline characteristics were similar between groups. The proportion of women experiencing at least one clinically suspected UTI was 55.7% in the placebo and 51% in the D-mannose group. The unadjusted risk difference was -4.69% (95% CI -12.78% to 3.40%, p=0.257). A per protocol analysis including only women who reported taking the treatment at least 4 days a week also found no significant difference. The D-mannose group received significantly fewer days of antibiotics (adjusted median difference 3 days [95% CI 1.60 to 4.40]). Data analysis is ongoing and full secondary outcomes data will be available for presentation.

Consequences

In women presenting to primary care with recurrent UTI, D-Mannose does not significantly reduce the chance of a subsequent infection in a period of 6 months of treatment.

Funding acknowledgement

This study is funded by the National Institute for Health Research (NIHR) School for Primary Care Research. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

1B.6 What are clinician's views and experiences of implementing a complex intervention to inform antibiotic prescribing in children with respiratory tract infections in primary care?

Presenter: Clare Clement

Co-authors: Jenny Ingram2, Christie Cabral3, Pete Blair2, Patricia Lucas4, Alastair Hay3, Penny Seume3, Jeremy Horwood3

Institutions: 1 Bristol Trials Centre, Bristol Medical School, University of Bristol 2 Centre for Academic Child Health, Bristol Medical School, Population Health Sciences, University of Bristol 3 Centre for Academic Primary Care, Bristol Medical School: Population Health Sciences, University of Bristol. 4 School for Policy Studies, University of Bristol

Abstract

Problem

Respiratory tract infections (RTIs) in children are common, lead to unnecessary antibiotic use and antimicrobial resistance. The CHIldren with COugh (CHICO) intervention incorporates a clinician focussed algorithm (STARWAVe) to predict hospitalisation, explicit elicitation of parental concerns, and a carer-focussed personalised leaflet recording treatment decisions, care, and safety netting information. The CHICO Randomised Controlled Trial (RCT) aimed to assess whether the intervention would result in reductions of antibiotic dispensing without impacting on hospital attendance. As part of the CHICO RCT, we aimed to evaluate how the intervention was implemented by clinicians in practice.

Approach

We conducted semi-structured interviews to explore whether the intervention was acceptable to and used by primary care clinicians from a range of practices with high and low antibiotic prescribing rates. Interviews were conducted in two phases (during the pilot period and after 12 months intervention period) with findings from the pilot phase used to make changes in the main trial. Normalisation Process Theory underpinned data collection and thematic analysis.

Findings

We interviewed 20 GPs and 6 nurses with a range of years' experience from 24 practices across 13 Clinical Commissioning Groups (CCGs). Most clinicians liked the intervention and used it as a supportive aid within consultations, describing it as a "safety net". It helped elicit parent concerns and reassure themselves and parents of the appropriateness of some treatment decisions. They liked the advice leaflet as it helped explain treatment decisions and home care with parents. Most clinicians liked the algorithm template and found it straightforward to use, without adding any more time to consultations. However, having to close the patient's record before the end of the consultation to complete the intervention process did not always align with clinicians' usual processes and was problematic. Clinicians' increased familiarisation with the template and algorithm outcomes led to reduced use of the template over time. Changes to practice pathways and consultation conduct and reduced numbers of children presenting with RTIs during COVID-19 waves also impacted use. Some clinicians adapted the intervention to use during remote consultations and to send the advice leaflet to parents digitally. Some clinicians believed the intervention influenced their prescribing behaviour and found it most useful in 'borderline cases'. However, others believed that it supported rather than changed their prescribing decisions and did not change their behaviour.

Consequences

Clinicians found the CHICO intervention useful, believed that it can help support decision making around antibiotic prescribing for children with RTIs and help discussions with parents about concerns and treatment decisions. The intervention may need to be adapted to align more with clinician's consultation flow and allow use during remote consultations.

Funding acknowledgement

Funding acknowledgement: This research is funded by the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) programme (funder ref: 16/31/98). The views expressed are those of the authors and not necessarily those of the NHS, t

1C.1 Workload and workflow implications associated with the use of electronic risk assessment tools used by health professionals in general practice: a scoping review

Presenter: Gary Abel

Co-authors: Emily Fletcher, Alex Burns, Bianca Wiering, Deepthi Lavu, Elizabeth Shepherd, Willie Hamilton, John Campbell, Gary Abel

Institutions: University of Exeter Medical School

Abstract

Problem

Electronic risk assessment tools are increasingly available to assist GPs in their clinical decision making in relation to diagnosis and management of a range of health conditions. It is unclear whether the use of such tools has an impact on GP workload and workflow. This scoping review aimed to identify the available evidence on the use of electronic risk assessment tools by health professionals in general practice and their impact on workload and workflow.

Approach

A scoping review was carried out using the Arksey and O'Malley methodological framework. The search strategy was developed iteratively, with three main aspects: general practice/primary care contexts, risk assessment/decision support tools, and workload-related factors. Three databases were searched, in 2019, updated in 2021, covering articles published since 2009: Medline (Ovid), HMIC (Ovid) and Web of Science (TR). Screening was completed by two reviewers, and data extracted from the identified articles was analysed.

Findings

The search resulted in 5,594 references, with 91 articles remaining after screening. Of these, 33 were USA studies, with UK and Australian studies comprising another third (20 and 11 studies respectively). A further 22 studies originated between Canada and Europe, with the remaining few studies conducted in New Zealand (2) , South Africa (2) and Malaysia (1). The studies all aimed to examine use of electronic tools and reported findings which included those related to impacts on aspects of workload, including consultation time (though this was often not the focus). Most studies were qualitative and exploratory in nature, reporting healthcare professionals' subjective perceptions of time as opposed to objectively-measured time spent using electronic tools and lengths of consultations. Others reported workload-related findings included impacts on cognitive workload, workflow and dialogue with patients, and clinicians' experience of 'alert fatigue'.

Consequences

The published literature on the use of electronic risk assessment tools in general practice shows that limited efforts have

focused on the quantitative impact of such tools on workload and workflow in consultations. The majority of studies reflected health professionals' perceptions that using such tools will involve additional time, workload and disruptions to workflow. Further research to provide objective, quantitative measurements of consultation lengths, would be useful to address whether these perceptions are justified.

Funding acknowledgement

Dennis and Mireille Gillings Foundation

1C.2 How do GPs experience the menopause?

Presenter: Rebecca Wharry and Corie Herbert

Co-authors: Corie Herbert, Sarah Hillman, Kirstie Haywood

Institutions: Warwick Medical School

Abstract

Problem

Menopause is a normal part of ageing but has the potential to significantly impact the working lives of women, with symptoms forcing some to leave their jobs. Research suggests symptoms such as hot flushes are difficult to manage at work, yet doctors are reluctant to discuss menopause with employers. Female General Practitioners (GPs) may be struggling in silence and missing out on vital support, with menopause potentially contributing to a GP workforce crisis. Our aim was to explore how menopause impacts the lives of female GPs and consider how the NHS could better support them.

Approach

GPs were recruited via social media accounts of the Unit of Academic Primary Care and the supervising GP. Recruitment was voluntary and exclusively NHS GPs or trainees, currently experiencing (peri)menopause symptoms (or within previous 5 years). Interviews on Microsoft Teams were arranged via email; these were semi-structured using a topic guide. Interviews were video recorded and auto-transcribed by Microsoft Teams, with transcripts checked for accuracy. Transcripts were qualitatively analysed using thematic analysis, with inductive codes developed and translated to key themes. NVIVO data management software was utilised.

Findings

Most frequent symptoms from the 19 GPs interviewed were sleep disturbances; brain fog; hot flushes; anxiety; night sweats and mood changes. Symptoms were often attributed to stress rather than menopause. The impact was apparent at home and work, but most participants believed employers could offer little support so did not discuss symptoms at work. Some participants described a postcode lottery for hormone replacement therapy, especially testosterone, making them seek private treatment. While most participants used HRT, others did not due to perceived risks. Self-management strategies included exercise, mindfulness, and rationalisation of symptoms.Participants described their lived experience of menopause positively impacting their care of menopausal patients. Changes for improved menopause care included training (especially for male GPs), increased awareness of HRT benefits, and menopause policies.

Consequences

Our results show GPs suffer a range of menopausal symptoms, with the impact being as significant as making them feel unsafe to continue their jobs, taking time off sick or changing roles. Due to a perceived lack of support available, they are reluctant to discuss menopausal symptoms. Menopause policies would increase awareness of support available and promote an open line of communication, free from judgment and discrimination. Additionally, the Practitioner

Health service was invaluable to participants who utilised it. Within the proposed policy, it would be useful to highlight eligibility for this service. Regarding the postcode lottery, research may be required on HRT availability, with variability between CCGs explored, to ensure equal access. Additional research may be required on testosterone to ascertain whether it should be more widely available on the NHS.

1C.3 Perspectives of GPs supporting young people who self-harm: a qualitative study

Presenter: Faraz Mughal

Co-authors: Benjamin Saunders, Lisa Dikomitis, Gillian Lancaster, Christopher J Armitage, Ellen Townsend, Carolyn A Chew-Graham

Institutions: School of Medicine Keele University, Kent and Medway Medical School University of Kent and Canterbury Christ Church University, Division of Psychology and Mental Health University of Manchester, School of Psychology University of Nottingham.

Abstract

Problem

Reducing self-harm in young people is an international public health priority; and self-harm is the strongest risk factor for suicide. Emotional distress, mental illness, and relationship difficulties, which have all been exacerbated by COVID-19, are risk factors for self-harm. Rates of self-harm in young people presenting in primary care are increasing, and GPs have a key role in the management of young people who self-harm. Young people have described varied experiences of care for self-harm in general practice, but perspectives of GPs about managing self-harm in this population have not previously been explored. Young people with lived experience of self-harm stated that examining GP views is important, and they co-developed this study's aim: to explore the perspectives of GPs on the presentation and management of young people who self-harm, and to understand the impact COVID-19 has had on this.

Approach

Semi-structured interviews were conducted remotely with GPs (n=15) across England. Purposive sampling aimed for a maximum variation sample in participant age, gender, years in practice, employment role, and practice list size and index of multiple deprivation. Recruitment was facilitated through Local Clinical Research Networks. Interviews were audio-recorded, transcribed verbatim, and thematic analysis with principles of constant comparison was conducted. A patient and public involvement group informed recruitment techniques, the interview topic guide, and interpretation of data.

Findings

The age of GPs ranged from 32-52 years; seven were male, and eight, female. GPs were from the Northeast, Midlands, East of England, London, and the Southwest; and undertook between two and 10 clinical GP sessions on average each week. GPs understood self-harm to be broad in nature with a spectrum of severity, and perceived COVID-19 to have influenced young people's access to general practice for self-harm care. GPs described a variety of strategies for managing young people who self-harm: treating underlying mental illness, offering distraction techniques, and signposting. GPs explained how remote consulting (video and teleconsulting) due to COVID-19 reduced the opportunity to identify non-verbal cues and develop relationship-based care: elements of the consultation that can be critical in supporting young people who self-harm.

Consequences

These findings highlight how GPs conceptualise self-harm, and their approaches to the management of self-harm, in young people. COVID-19 appears to have impacted on access to care for young people; and subsequently remote consulting may hinder GPs when managing self-harm. This study will generate primary care practice recommendations for supporting young people who self-harm and will inform the development of a GP-delivered intervention to reduce self-harm in young people.

Funding acknowledgement

This study was funded by an NIHR Doctoral Fellowship, FM, NIHR300957. CAC-G is funded through the NIHR Applied Research Collaboration, West Midlands, and CJA through the NIHR Greater Manchester Patient Safety Translational Research Centre. The views expre

1C.4 How are staff and patients supported to use online services in primary care? Findings from qualitative stakeholder interviews

Presenter: Bethan Treadgold

Co-authors: Emma Pitchforth, Rachel Winder, Carol Bryce, Jenny Newbould, Stephanie Stockwell, Helen Atherton

Institutions: University of Exeter, University of Warwick, RAND Europe

Abstract

Problem

The adoption of NHS online primary care services has been encouraged in England for some time, although Covid-19 has seen an acceleration in uptake. Online services including appointment booking, ordering repeat prescriptions, and viewing patient records have been available to patients for over five years. With concerns around digital exclusion and inequalities, it is not clear what is actively being done within primary care to support patients or staff in the use of expanding services, or those who may require particular help. We refer to this support as 'digital facilitation'. As part of the Di-Facto study, the aim of this study was to explore the views of stakeholders around the drivers, priorities and evolving policy context influencing digital facilitation.

Approach

Semi-structured qualitative interviews with 15-20 stakeholders. An initial stakeholder mapping considered relevant stakeholders at national, regional, and local level in England, including those in the NHS England infrastructure, Clinical Commissioning Groups, third sector organisations, providers of online services and patient representative groups. Mapping informed recruitment and a snowball sampling approach was used to identify further stakeholders. Interviews sought to explore the policy context, drivers, enablers and challenges to digital facilitation, including broader issues of access and digital exclusion. Interviews were conducted by phone or Zoom/Teams, audio recorded, and transcribed using a professional transcription company. Transcripts are being analysed using an inductive thematic approach.

Findings

Early findings suggest that there is awareness of the concept of digital facilitation, and that key drivers for online services include GP demands for efficiency, patient demands for access, the business investment aspects of general practices, and the pandemic. Stakeholders were mostly unaware of what is being done to guide practices in digital facilitation and what policies exist. Receptionists were thought to be key in digital facilitation. Perceptions exist that improved access to online services leads to more GP demand, and provision for a future redesign of the front end of primary care as concierge-type. Individual barriers exist for

various vulnerable groups, including affording internet and handsets for homeless groups, managing evolving technology for the elderly, and confidentiality for those with mental health issues. There is lack of agreement on who the priority groups are for accessing online services.

Consequences

Policy is likely to support the continued expansion in use of online services in primary care. It is evident that there is not a common understanding of what digital facilitation is available, or clear guidance on what this should be. The views of broader stakeholders are often not included but show that looking beyond the practice is important. Together with findings from other components within the Di-Facto study, recommendations will be provided for future development and implementation of promising approaches to digital facilitation.

Funding acknowledgement

This research was funded by the National Institute for Health Research.

1C.5 What are the views and experiences of primary care staff regarding patients having online access to their electronic primary care health record?

Presenter: Brian McMillan

Co-authors: Gail Davidge, Lindsey Brown, Moira Lyons, Tjeerd Van Staa, Peter Bower

Institutions: University of Manchester

Abstract

Problem

At the time of writing, NHS England state that from April 2022, all adult patients who have an account with an online records access (ORA) service such as the NHS App, will be able to view new entries in their record, including free text, letters, and documents. Despite this, little is known about the views and experiences of primary care staff on this topic. This study aims to find out more about what primary care staff think and feel about ORA, and what support they may need to help with this transition.

Approach

We are conducting fifty semi-structured interviews with clinical and non-clinical primary care staff, from a mix of urban/rural and affluent/less affluent practices. We have conducted a preliminary analysis of the first 20 interviews, and will conduct a thematic analysis on the full dataset when available.

Findings

A preliminary analysis categorised views expressed regarding ORA according to the Institute of Medicine's 6 domains of healthcare quality: 1) Patient centeredness (e.g. the potential to increase patients autonomy or cause patients distress), 2) Effectiveness (e.g. impacting upon the consideration of potential differential diagnoses), 3) Safety (e.g. access by an abusive partner), 4) Efficiency (e.g. the potential for both positive and negative impacts on workload), 5) Timeliness (e.g. reducing delays for patients or delaying other aspects of care), and 6) Equity (e.g. disproportionately benefiting the 'worried well').

Consequences

Although primary care staff report benefits of ORA, they also have a number of significant concerns. Future work could explore how primary care staff could be further supported to use ORA to empower and activate patients to be equal partners in managing their healthcare. ORA will require that healthcare practitioners adapt the manner in which they consult and write in the medical record.

Future work needs to examine how we can maximise the benefits and minimise the risks involved.

Funding acknowledgement

This research was funded by a National Institute for Health Research (NIHR) Advanced Fellowship (NIHR300887). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

1C.6 Recruitment and retention of staff in rural dispensing practice (RETAIN)

Presenter: Rosina Cross

Co-authors: Sinead TJ McDonagh, Emma Cockcroft, Malcolm Turner, Matthew Isom, Robert Lambourn, John L Campbell, Christopher E Clark

Institutions: University of Exeter, Dispensing Doctors' Association Limited, @Cheviot Primary Care Centre

Abstract

Problem

General Practice (GP) surgeries in rural areas often struggle to employ and retain healthcare professionals and other members of the multidisciplinary primary care team. Existing research into the problems of rural recruitment and retention is limited, and doctor focused. Migration of younger people from rural areas, high employment rates and absence of rural proofing in workforce planning may be important. A persistent shortage of appropriately qualified rural staff may affect functioning of the practice, quality of care and patient experience. Dispensing medications in rural practice is a service valued by patients, and some practices rely on the income generated from dispensing. However, little is known about how maintaining dispensing services contributes to recruitment and retention of staff.This study aims to understand the barriers and facilitators to working and remaining in rural dispensing practices, and to explore how the primary care teams value dispensing services.

Approach

We undertook semi-structured interviews with multidisciplinary team members of rural dispensing practices across England. Interviews were audio-recorded, transcribed and anonymised. Framework analysis is being conducted using Nvivo 12. Full findings will be presented at the conference.

Findings

Seventeen primary care staff members were recruited from 12 rural dispensing practices across seven regions in England. Four GPs, two practice nurses, five practice managers, two administrative staff and four dispensers were interviewed, with some of these individuals employed in multiple roles. Practice patient population size ranged from 2,500 to 26,000.Several interconnected factors impacting both recruitment and retention of staff to rural dispensing practice have been identified. Personal and professional reasons for taking up a role in a rural dispensing practice included perceived career autonomy and development opportunities, and preference for working and living in a rural setting. Challenges to recruitment were largely dominated by factors associated with non-clinical roles, but also to nursing roles, and concerns around staff access to care. The skilled nature of the dispensing role, teamed with the relatively low wages and high cost of living in, or commuting to, a rural area seemed to be a key barrier to recruitment in these roles. However, difficulties recruiting nurses seemed to stem from a perceived lack of knowledge around the nursing role in rural care.Key factors impacting retention of staff included revenue generated by dispensing, opportunities for staff development, job

satisfaction and the positive work environment. Perceived challenges to retention were balancing the required skillset of dispensing with the wages available for the role, lack of skilled job applicants, negative perceptions of rural primary care practice and travel difficulties.

Consequences

The findings from this study can inform national policy and practice with the aim of improving the understanding of the challenges of working in rural dispensing primary care in England.

Funding acknowledgement

The RETAIN project was funded by the National Centre for Rural Health and Care (NCRHC). The views expressed are those of the authors and not necessarily those of the NCRHC, NIHR, the NHS or the Department of Health.

1D.1 Can simple or widely available factors be used to predict adverse outcomes in people with rheumatoid arthritis? Cross-sectional study of 5658 UK Biobank participants.

Presenter: Jordan Canning

Co-authors: Stefan Siebert, Bhautesh Jani, Frances Mair, Barbara Nicholl.

Institutions: University of Glasgow

Abstract

Problem

There is a need to identify prognostic factors, which are potentially readily available in a primary care setting, that can predict adverse health outcomes in people with rheumatoid arthritis (RA). We aimed to explore the associations, if any, between selected potential prognostic factors (including clinical, physiological and patient-reported measures) and risk of all-cause mortality and major adverse cardiovascular events (MACE; including myocardial infarction and stroke) in an RA population.

Approach

This cross-sectional study included UK Biobank participants that self-reported RA. Selected prognostic factors, identified in the literature as having predictive potential, that could be accessible in a primary care setting were categorised into the following domains: anthropometric measures (body mass index (BMI), body fat percentage, waist circumference, waist-to-hip ratio), functional measures (hand grip strength (HGS), usual walking pace (UWP)), inflammatory markers (C-reactive protein (CRP)), patient-reported measures (pain), physiological measures (blood pressure (BP), heart rate (HR)) and serological markers (rheumatoid factor (RF)). Associations between individual prognostic factors and outcomes of interest were explored using Cox proportional hazards models, adjusting for age, sex, socioeconomic status, additional long-term condition count and smoking status in the first instance to identify significant individual predictors. Models were further adjusted for any identified individual predictors to determine the most important prognostic factors.

Findings

In UK Biobank, 5658 (1.1%) participants self-reported RA (mean age 59; 69.8% female). 670 deaths and 370 MACE were recorded during the follow-up period (median 11 and 8 years, respectively). The following prognostic factors demonstrated significant associations with risk of all-cause mortality, independent of other significant predictors: underweight BMI (<18.5kg/m2) (hazard ratio (HR) 2.96 [95% confidence interval (CI) 1.59-5.51]), obese BMI (≥30.0kg/m2) (HR 0.52 [95% CI 0.36-0.76]), 3-10mg/L CRP (HR 1.41 [95% CI 1.14-1.75]), >10mg/L CRP (HR 1.77 [95% CI 1.39-2.26]), low HGS (<16kg female or <27kg male) (HR 1.28 [95% CI 1.05-1.56]) and slow

UWP (HR 1.31 [95% CI 1.06-1.62]). Likewise, the following factors were found to be significantly associated with MACE, independent of other significant factors: >10mg/L CRP (HR 1.62 [95% CI 1.19-2.20]), low HGS (HR 1.61 [95% CI 1.26-2.07]) and slow UWP (HR 1.50 [95 % CI 1.15-1.97]).

Consequences

Our findings highlight the potential value of select prognostic factors for predicting adverse outcomes in RA populations. A simple, yet multidimensional approach to risk assessment, combining well-tolerated, easily repeatable measures such as those described here may provide important prognostic information at primary care level, while limiting excessive and overly invasive testing for RA patients. The use of such factors may enhance risk stratification and promote more personalised care for RA patients.

Funding acknowledgement

This work is supported by the Medical Research Council [grant number: MR/N013166/1].

1D.3 Prediction of cardiovascular disease in patients with unattributed chest pain in UK primary care

Presenter: Kelvin Jordan

Co-authors: Trishna Rathod-Mistry, James Bailey, Danielle van der Windt, Ying Chen, Lorna Clarson, Spiros Denaxas, Richard Hayward, Harry Hemingway, Theocharis Kyriacou, Mamas Mamas

Institutions: Keele University, University College London, Xi'an Jiaotong - Liverpool University

Abstract

Problem

Most adults presenting in primary care with chest pain symptoms will not receive a specific diagnosis (“unattributed” chest pain). These patients are more likely to develop cardiovascular disease (CVD) than patients with chest pain attributed to a non-coronary reason. Determining which patients with unattributed chest pain have the greatest risk of CVD would allow for targeted intervention strategies. Current risk prediction algorithms for CVD (e.g. QRISK3) have been developed for the general population but may not be appropriate for this group of patients. The aim was to assess within patients with unattributed chest pain, whether those at greatest risk of CVD can be ascertained.

Approach

We used the CPRD Aurum database containing electronic health records from English general practices linked to admitted patient hospitalisations from the Hospital Episode Statistics database. The study population was patients aged 18 and over with a new primary care record of unattributed chest pain between 2002 and 2018, and no record of CVD up to six months (diagnostic window) afterwards. Outcomes were cardiovascular events starting from end of the diagnostic window. Flexible parametric survival analyses were used to derive risk factors for future CVD over 10 years. Baseline candidate factors (n=23) were those included in general population cardiovascular risk algorithms, alternative explanations for chest pain, and other comorbidities predictive of CVD. We developed and validated a prediction model, with external validation in a second primary care database (CPRD GOLD) linked to admitted patient hospital data and compared performance to a risk prediction model (QRISK3) developed for use in the general population.

Findings

There were 374,917 patients with unattributed chest pain. Median follow-up was 6.1 years. Incidence of CVD was 19.3 per 1000 person-years. The strongest comorbidity risk factors for CVD included type I diabetes

(adjusted hazard ratio 2.41; 95% CI 2.11, 2.76), atrial fibrillation (1.95; 1.85, 2.06), and hypertension (1.55; 1.50, 1.59). Socio-demographic risk factors included older age, male gender, greater deprivation, and Asian ethnicity. Internal validation of the final model showed high predictive performance with c-statistic of 0.797. Discrimination and calibration performance were good when stratified by gender, neighbourhood deprivation, and geographical region. In the external validation dataset, the c-statistic was 0.805 and calibration slope close to one. Calibration plots showed good agreement between observed and expected risk at all levels of risk. A reduced model using a subset of key risk factors for CVD gave nearly identical performance. QRISK3 performed less well in this population.

Consequences

Patients presenting to primary care with unattributed chest pain are at increased risk of cardiovascular events, but it is feasible to ascertain those most at risk using routinely recorded information in the primary care record. These patients could then be targeted for preventative measures.

Funding acknowledgement

Study funded by the British Heart Foundation, reference PG/19/46/34307. KJ also supported by matched funding awarded to the NIHR Applied Research Collaboration (West Midlands). This study is based in part on data from the Clinical Practice Research Datali

1D.4 Bone Health Assessment in men and women with risk factors for fragility fractures

Presenter: Anup Pradhan

Co-authors: Elaine Nicholls, John Edwards, Vicki Welsh, Zoe Paskins

Institutions: School of Medicine, Keele University, David Weatherall Building ST5 5BG

Abstract

Problem

Osteoporosis is commonly known to affect post-menopausal women with fragility fractures seen in one in two women. However, this condition also affects men with one in five men over the age of fifty years expected to sustain a fragility fracture during their lifetime (NICE 2018). Identifying all patients at risk of fragility fractures is thus important to improve health outcomes. Assessment of men at risk of osteoporotic fractures seems to be poorly appreciated and possibly undertreated. This study has assessed whether bone health assessments (BHA) were carried out on patients aged 50 years and over with one or more risk factor(s) for fragility fractures, including those who have suffered from previous fractures at sites commonly affected by osteoporotic fractures, falls and taking steroids for three months or more utilising a primary care database. We hypothesised that access to bone health assessment for patients with the above risk factors should not vary with sex and that there will be no difference in the assessment rate of bone health between women and men.

Approach

Patients aged 50 years and over who presented with a fracture, fall or who were taking steroids (measured as taking prednisolone) for three months or more within the study period of January 1st, 2002 and December 31st, 2014 were identified from the Consultations in Primary Care Archive (CiPCA) database. These patients were evaluated to see whether a BHA was carried out within twelve months of presentation. Evidence of a BHA was defined with documentation of codes for a fragility fracture assessment tool (FRAX/QFracture), referral for bone density measurement, referral to the osteoporosis clinic/rheumatologist, osteoporosis-related

codes or if bone protection medication was started.

Findings

Of the 15,581 patients identified in the study period, 1172 patients (7.5%) had evidence of BHA within one year of presentation. 8.9% of females and 5.5% of males had BHA. This difference was found to be statistically significant on Chi squared test ($X2 = 59.88$, $p < 0.0001$), meaning that women were more likely to undergo a BHA than men. This relationship prevailed after adjusting for age, type of risk factor, co-morbidity and number of consultations with an odds ratio for sex of 1.25 (95% Confidence Interval 1.08-1.43).

Consequences

This study has highlighted that BHA in at-risk patients is under-recorded in men and women, and that women are more likely to have a BHA compared to men with an increase in odds around 25%. Health care professionals and patients should be made more aware of the need to carry out a BHA in men and women, and particularly in men, to reduce the risk of fragility fractures. Increased use of fracture assessment tools (FRAX/QFracture) can help identify patients at risk of fractures.

Funding acknowledgement

This study was done during my Masters in Medical Science programme at Keele University as part of my NIHR-funded Academic Clinical Fellowship in General Practice.

1D.5 Face Masks whilst ExeRcIsing Trial (MERIT): a crossover randomised controlled study

Presenter: Nicholas Jones

Co-authors: Nicholas Jones, Seren Marsh, Jason Oke, Kurosh Nikbin, Jonathan Bowley, FD Richard Hobbs and Trisha Greenhalgh

Institutions: University of Oxford Nuffield Department of Primary Care Health Sciences, Jesus College University of Oxford, Kings College London, University of Nottingham

Abstract

Problem

Physical exertion is a high-risk activity for emission of aerosols, including the SARS-CoV-2 virus, but there is controversy around whether facemasks are safe and acceptable when exercising. We aimed to determine the safety and tolerability of healthy young adults wearing different types of facemask during moderate-to-high intensity exercise.

Approach

We conducted a crossover randomised controlled study, comparing a surgical, cloth and FFP3 mask to no mask during 15 minutes of exercise separated by 5 minutes rest. Participants were students aged 18-35 years, who exercised at least three times per week and had no pre-existing health conditions that restricted their activity. In a non-inferiority analysis, the primary outcome was changes in oxygen saturations (non-inferiority margin=2%). Secondary outcomes included changes in heart rate (non-inferiority margin=7bpm), mask comfort and perceived impact on exercise.

Findings

72 individuals (mean age 23.1 years) completed the study. Changes in oxygen saturations and heart rate did not exceed the pre-specified non-inferiority margin with any mask type compared to no mask. At the end of exercise the estimated average difference in oxygen saturations for the cloth mask was -0.07% (95%CI -0.39 to 0.25), for the surgical 0.28% (95%CI -0.04 to 0.60) and for the FFP3 -0.21% (95%CI -0.53 to 0.11). The corresponding estimated average difference in heart rate for the cloth mask was -1.20bpm (95%CI -4.56 to 2.15), for the surgical

0.36bpm (95%CI -3.01 to 3.73) and for the FFP3 0.52bpm (95%CI -2.85 to 3.89). The cloth mask was felt to be most difficult to exercise in by 56.3% of participants (n-=40) and the FFP3 mask by 38% (n=27). Wearing a facemask caused additional symptoms such as breathlessness (n=13, 18.1%), dizziness (n=7, 9.7%) and fatigue (n=6, 8.3%). 33 participants broadly supported facemask wearing during exercise, particularly indoors, 18 would agree to this if it were mandated and 22 were opposed.

Consequences

Exercising at moderate-to-high intensity wearing a facemask appears to be safe in healthy, young adults. Some students would be opposed to the mandatory wearing of facemasks for exercise but there was most support for wearing a surgical facemask during indoor exercise if needed to reduce the spread of COVID-19.

Funding acknowledgement

Buff provided the cloth face masks for the study free of charge. NJ's is supported by a Wellcome Trust Doctoral Research Fellowship (grant number 203921/Z/16/Z). FDRH acknowledges support from the NIHR School for Primary Care Research, NIHR ARC Oxford and

1E.1 Primary care response to domestic violence and abuse in the COVID-19 pandemic: a rapid mixed-methods analysis (PRECODE)

Presenter: Elizabeth Emsley

Co-authors: Sharon Dixon, Anna Dowrick, Eszter Szilassy, Jasmina Panovska-Griffits, Medina Johnson, Lucy Downes, Anna De Simoni, Vari Wileman, Chris Griffiths, Estela Capelas, Gene Feder

Institutions: University of Bristol, University of Oxford, Queen Mary University London, Kings College London, City University of London, IRISi

Abstract

Problem

Domestic violence and abuse (DVA) increased during the COVID-19 pandemic. During lockdowns usual routes to support and safety for people experiencing DVA were shut down or limited. In parallel, the pandemic required general practices to rapidly adapt to different ways of delivering care, largely shifting to remote consultations. Remote working has also extended to training and education.Primary health care professionals play a vital role in responding to patients affected by DVA and linking them to specialist DVA services. The PRECODE study explores the impacts of the pandemic (including these associated societal and clinical transitions) on how primary care has been providing support for patients affected by DVA during the pandemic period.

Approach

Using a rapid mixed-methods approach (interrupted time series and non-linear regression of daily referrals to IRIS DVA services from general practices in 33 areas in England and Wales; Interview- and observation-based qualitative study), the study explores the impact of the pandemic on DVA referral and patient support from primary care using practices engaged with the Identification and Referral to Improve Safety (IRIS) DVA education and referral support programme.

Findings

Referrals to DVA services reduced during the first national lockdown in 2020 compared to time periods before and after (27% CI=(21%, 34%), with 19% fewer referrals compared to an equivalent period the preceding year. These findings were compared with school holidays, another period of social closure, showing that during these times referrals for

women experiencing DVA also reduced (2019 pre-pandemic school holiday 44%, 95% CI=(32%, 54%).We have conducted 19 semi-structured interviews with IRIS advocate educators, GPs, practice managers and primary care receptionists and have observed nine remote training sessions. Analysis of qualitative interviews highlights challenges identified by practices and adaptations they have made in transitioning to remote DVA training, and in identifying and supporting survivors. Key considerations included when and how to open conversations about DVA within remote consultations, achieving a safe space for disclosure, and acknowledging that patients may have limited safe periods to speak. Adaptations included having a low threshold for face-to-face appointments if there were DVA concerns and adapting how practices signal to patients that they are receptive to conversations about DVA.Remote training has improved access for GP staff, however, there have been challenges in training delivery, affecting engagement between facilitator and attendees.

Consequences

These findings demonstrate a need to ensure adequate access and support for those affected by DVA during potential future periods of lockdown, with relevance to other periods of social closure, such as school holidays. As the NHS emerges from the pandemic, remote consulting is likely to retain a prominent place in service delivery; it is critical to consider how this impacts on identification and support for patients affected by DVA.

Funding acknowledgement

This study is part of PRECODE as a 12-month third section-cross university collaborative project funded by the UKRI (UK Research and Innovation) Rapid Response Call and the MRC (MR/V041533/1). CG receives funding from NIHR Applied Research Collaboration N

1E.2 Facilitating access to online NHS primary care services a focused ethnography

Presenter: Stephanie Stockwell

Co-authors: Stephanie Stockwell, John Campbell, Jennifer Newbould, Carol Bryce, Bethan Treadgold, Helen Atherton

Institutions: RAND Europe, University of Exeter, University of Warwick

Abstract

Problem

Policy makers in England have advocated for the adoption of online services in recent years. Some primary care online services, including online appointment booking, ordering repeat prescriptions and accessing medical records have been widely available for the last 5 years, however, take up is variable. The COVID-19 pandemic has seen practices encourage the use of online services, but this raises questions about the ability of patients to engage with these services and the possibility of exacerbating inequalities. One way to ameliorate this is for general practices to support patients in the use of online services through digital facilitation.

Approach

Embedded in a wider mixed methods study, we conducted focused ethnographic case studies that seek to understand in-depth, and from the perspective of practice staff and patients/carers, the potential benefits and challenges associated with different models of digital facilitation. We collected data through non-participant observation, semi-structured interviews and secondary analysis of relevant documentation. Working in three regions of England, we aim to recruit 8 case study sites that demonstrate varying levels of digital facilitation, different practice characteristics and practice population demographics.

Findings

Data collection is currently ongoing. Practices recruited to date include: 5 urban, one semi-urban and one rural; 3 large, 2 medium and 2 small practices. In terms of patient population; 3 practices with high levels of deprivation, 3 with lower levels of deprivation and one in the middle. Data from the first four sites suggests practices value digital offers and therefore the importance of digital facilitation differently. Common to many practices is a lack of overall strategy and shared purpose, understanding and vision among staff members, resulting in much of digital facilitation being conducted ad hoc and to varying degrees by different staff members. Staff confidence and workload appear to be key influences for DF, with younger staff members and those who appear confident using digital services becoming the staff often taking on digital facilitation activities. There appears to be a lack of formal training, guidance and support for staff, and in those practices where some is provided, staff are not always aware of it. There is also potential that these challenges have been exacerbated by the COVID-19 pandemic and expedited rollout of digital services. Some examples of digital facilitation observed included talking patients through accessing systems verbally (usually via telephone), promotional posters, promotion via PPGs, bounce-back emails and pre-recorded telephone messages encouraging patients to use online services.

Consequences

The case study findings will enable us to highlight important barriers and facilitators to digital facilitation and enable us to recommend ways to develop and implement promising approaches to digital facilitation. Emergent findings already indicate potential changes that practices could adopt to enable them to provide more targeted and efficient digital facilitation.

Funding acknowledgement

This work was funded by NHIR (NIHR128268).

1E.3 The role and response of primary healthcare services in community end-of-life care during COVID-19: What can be learned and embedded to improve future care?

Presenter: Sarah Mitchell

Co-authors: Sarah Mitchell (1) Aysha Wahid (1) Nicola J Turner (1), Phillip Oliver (1), Clare Gardiner (1), Catriona R Mayland (1), Helen Chapman (2), Dena Khan (3), Kirsty Boyd (4), Stephen Barclay (5), Jeremy Dale (6).

Institutions: 1. University of Sheffield, 2. Sheffield Teaching Hospitals Integrated Care Team, 3. PPI co-author, 4. University of Edinburgh, 5. University of Cambridge, 6. University of Warwick.

Abstract

Problem

There has been a 41% increase in the number of people dying at home, including in care homes, during the COVID-19 pandemic. General practitioners and community nurses have rapidly changed the way in which they have delivered end-of-life care during the pandemic, but this has been the subject of very little research during COVID-19 and previous pandemics. The aims of this study are: 1. To build upon a UK survey of primary healthcare professionals with an in-depth exploration of the beneficial service changes for community end-of-life care during COVID-19 from a primary care perspective. 2. To develop recommendations to improve the primary care delivery of end-of-life care in the future, including during pandemics, drawing upon behaviour change theory.

Approach

Semi-structured qualitative interview study to elicit in-depth, detailed insights. Thematic

analysis conducted by the research team was followed by refinement of themes and recommendations in consultation with an expert advisory group.

Findings

GPs (n=8) and community nurses (n=15) working in primary care across the UK. Expert advisory group of GPs (n=3), public health consultant (n=1) and specialist palliative care consultants (n=2). Interview participants reported significant practical and emotional challenges in providing community end-of-life during the COVID-19 pandemic. Three inter-related themes emerged to describe critical success factors for sustaining community end-of-life care from a primary care perspective: (1) partnership working is key to community end-of-life care, (2) COVID-19 highlighted the need to improve advance planning for end-of-life care, and (3) the importance of the presence of primary care professionals in end-of-life care must be recognised.

Consequences

In order to embed positive change, recommendations include increased policy focus on building capability and opportunity to capitalise upon the motivation of the primary care workforce to provide end-of-life care. The potential for increased use of technology to enable a multi-disciplinary team approach and to deliver education and training requires more research and investment. New systems that enable palliative care in primary care developed during the pandemic include access to medicines and time for care planning. The leadership role of general practitioners in end-of-life care within primary care teams, and in healthcare organisations, is important and enables collaborative guideline and policy development for end-of-life care. Future research should include the perspective of patients and families, and the wider primary healthcare team including community pharmacists.

Funding acknowledgement

This research was funded by the Scientific Foundation Board of the Royal College of General Practitioners (Grant No SFB 2020 – 11).

1E.4 Remote first in primary care during COVID-19: views and experiences of patients to inform future service development

Presenter: Jenny Downing

Co-authors: Prof Umesh Chauhan, Prof Nefyn Williams, Prof. Tony Marson, Sandra Smith, Koser Khan, Dr Kimberly Lazo, Dr Mark Goodall, Dr Pete Dixon, Dr Victoria Appleton, Prof. Mark Gabbay

Institutions: University of Liverpool, University of Central Lancashire, University of Lancaster, NIHR ARC North West Coast

Abstract

Problem

Covid-19 has created healthcare delivery challenges previously unseen. The rapid switch to access to healthcare through ‘remote first’ was necessary to limit Covid-19 transmission and increase safety, even though our understanding of its acceptability, effectiveness and impact on health inequalities was limited. Remote care has continued due to public health measures, however, almost two years into the pandemic it is important to assess the impact of this natural experiment on the views of patients, particularly considering the consequences of a remote first approach to primary care access to populations with greater need, such as those with multimorbidity, disability or learning difficulties.

Approach

An online survey was designed with a combination of closed questions and free text sections to gather data from patients about

their experiences and views of remote first. GP practices across the North West Coast sent out the survey link via text message to a selection of patients. The survey was also promoted on social media. We used descriptive statistics to explore the quantitative data and inductive thematic coding to identify the themes within the qualitative data.

Findings

1030 patients (from 45 practices) completed the survey over 6 weeks. During this time, primary care appointments were reported as most likely to have been by telephone, e-consultation or face-to-face with most being via telephone or face-to-face. Patients overwhelmingly wanted future appointments face-to-face or via telephone and preferred consultations to be remote 'occasionally' (32.8%). However, the majority of patients (>50%) were satisfied with their care, their rapport with the clinician, the length of their consultations and the convenience of their consultation. Patients reported that remote first was often efficient, convenient, safe, and good for minor or transactional needs. However, they were least satisfied with any examination conducted by their clinician expressing concerns about the accuracy of remote diagnosis and risk of missing health issues. Patients also stated concerns about lack of choice, difficulties with communication when not face-to-face, and concerns about the quality of care. Patients want more choice in appointment type in the future, in additional to improvements in the triage systems. Those who are elderly with long-term conditions, those with learning difficulties, mental health conditions or hearing impairment reported a need for face-to-face appointments in order to communicate and understand the clinician better. The online survey design resulted in underrepresentation from BAME and other marginalised populations.

Consequences

Primary care triage and consultation types vary now more than ever before. This could potentially provide patients with more choice and easier accessibility, however getting the balance right is a challenge. The findings from this research can help to inform future changes in primary care, specifically in relation to appointment default options for vulnerable populations. Further research focusing on marginalised populations is needed.

Funding acknowledgement

This research was funded by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care North West Coast. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or

1E.5 The Impact of COVID on a Rural Community GP Practice: A Qualitative Analysis

Presenter: Jennifer Deane

Co-authors: Sara Macdonald, Gregory Rubin, Peter Murchie, Lorraine Angell, Christina Dobson

Institutions: Newcastle University, University of Glasgow, University of Aberdeen, PPI Representative

Abstract

Problem

COVID presented specific challenges for rural populations due to the features of the community, infrastructure and environment, which in turn presented rural primary care with unique challenges to negotiate Difficulties with distance to services and poor public transport may have been exacerbated by COVID due to the stay at home orders, and the reliance of many rural patients on others for transport to health care services. Isolation

in rural areas already impacts mental health and is expected to have been further exaggerated by COVID. The move to increased use of telephone and video remote consultations during the pandemic may more severely impact rural communities, who often face poor internet coverage and phone signals. These combined issues may mean that rural communities are more at risk of delayed presentation and constrained ability to access primary care.

Approach

This case study population comprised of patients registered at a single rural Yorkshire practice, covering a remote rural area of approximately 200 square miles. Participants were invited to complete a survey about recent symptoms and attitudes to accessing healthcare with regards potential symptoms of colorectal cancer. Fourteen survey respondents were purposively sampled to take part in a semi-structure interview, exploring their thoughts about accessing health care after the pandemic and the impact on their community. Interviews were conducted one to one, remotely, audio-recorded and transcribed. An inductive analytical approach was undertaken as this is a novel topic.

Findings

Five themes were derived from the data.Theme 1; The impact of COVID on healthcare interaction emphasised the importance of trust between the GP Practice and the community. Rural GP practices already face accessibility issues, however, the move to remote consultations impacted not only health care interactions, but also a valued community space and opportunity to interact. Theme 2 covered Perceptions of Health and Wellbeing, particularly the heightened sense of isolation experienced by many. Theme 3 considered the Impact to the Rural Economy, and the tensions created over the communities' differing economic needs. Theme 4; Community Interaction and Protection highlighted how the pandemic unified the community in their efforts to protect each other, whilst also dealing with the perceived threat of "outsiders". Theme 5; The Environment, showed how behaviour and feelings were shaped (positively and negatively) by rural location.

Consequences

Whilst COVID has impacted rural patients' feelings about accessing health care, the impact of the pandemic on rural communities was most acutely noticeable in relation to community interaction and support, and the mental health impacts, as a result of increased loneliness, solation and worries about financial security for those working in rural tourist economies. Community mobilisation resulting from the pandemic highlights the potential power of community engagement in future public health campaigns in rural areas.

Funding acknowledgement

This work was funded by The British Academy (COV19\200122)

1E.6 Improving access to child and adolescent mental health services during the pandemic and beyond

Presenter: Gaurav Menon

Co-authors: Dr Dushyanthan Mahadevan

Institutions: University of Central Lancashire, East Lancashire Children and Adolescent Services

Abstract

Problem

Social restrictions during the COVID-19 pandemic have increased mental health problems amongst young people. To address this issue, East Lancashire Children and Adolescent Services (ELCAS) developed a virtual drop-in clinic, whereby young patients and/or carers could access virtual

consultations with a Mental Health Practitioner via a secure online platform. ELCAS wanted to seek feedback from patients regarding the service but found a low response rate to online questionnaires sent out post-consultation. The aim of this quality improvement project was to improve the feedback system in order to better understand the patient experience, with a view to generating and developing new improvement ideas.

Approach

After consulting key stakeholders, a change of process to directly contact patients or parents for feedback via telephone or email after the clinics was proposed. A guide was made for clinicians on how to ask for contact information at the end of their clinic. A team member contacted patients and parents to collect feedback using a questionnaire.

Findings

The number of responses increased by 220% and the aims of the project were met. Overall, feedback was positive and service users found the clinic to be beneficial. A key strength was good signposting. Recommendations to help improve the efficiency of the clinic were made. These included contacting local GPs to advertise the clinic, increasing the number of clinics, and starting a community drop-in clinic.

Consequences

The remote consultation model via the use of virtual drop-in clinics adopted by ELCAS has proven beneficial for children and adolescents in the East Lancashire region. This quality improvement project highlighted the efficiencies of using technology for providing mental health advice. This can be continued during the pandemic and beyond.

1F.1 WORKSHOP

The future of self care in the 21st century NHS

Presenter: Facilitators: David Mummery and Austen El Osta

Co-authors: Dr David Mummery, Research Fellow Dr Austen El Osta , Director

Institutions: Imperial College Self Care Academic Research Unit, (SCARU) Dept Primary Care and Public Health

Abstract

Workshop aim and outcome/objectives : To discuss the role of "Self Care" for patients in the future of the NHS: full and frank discussion regarding safe and effective ways of promotion and enabling of patient empowerment, agency and self care, and whether GPs should be doing this at all. The NHS long-term plan states: “many (but not all) people wish to be more informed and involved with their own care, challenging the traditional divide between patients and professionals, and offering opportunities for better health through increased prevention and supported self-care”. Indeed it is argued that the whole future of a viable, affordable and efficient NHS depends on supporting and enabling increased levels of appropriate self-care for large number of patients in a safe and effective manner. The NHS, in its current form will simply not be able to be clinically and financially viable with the ever increasing demands and expenses it incurs. Currently the demand on the NHS is overwhelming, and is likely to increase with an ageing and expanding population who have increasing levels of multi-morbidity. Format: Short presentation 10-15, discussion of current research, and then interactive and open discussion and debate in the workshop. Content: Currently there are approximately one million Primary Care appointments a day in the UK, and this is unlikely to increase without a surge in recruitment and training of

General Practitioners and nurses. In some parts of the UK 40% of GP posts are unfilled, and with an emerging recruitment crisis in General Practice, it seems unlikely currently that there will be very large numbers of extra GPs and nurses in the coming years to help to manage this demand. The Government, with the current economic and financial situation in the UK, also seems unlikely to increase overall funding for the NHS, and Primary Care in particular in the coming years, to a significant degree. Part of the reason for the endless demand for medical services, it seems is that over the last few decades there has been a shift from individual responsibility for management of simple ailments, such as self-limiting illness, to professional responsibility for this. Imperial SCARU (Self Care Academic Research Unit), based at the Department Primary Care and Public Health is the first University unit in the world looking at the totality of self care relating to health, and has formulated the "self care matrix" as a tool and lens to analyse self care interventions. https://www.imperial.ac.uk/school-public-health/primary-care-and-public-health/research/scaru/

Intended audience: All GP and other healthcare professionals and academics working in healthcare

2A.1 Can online interventions supporting eczema self-management for young people and parents/carers of children with eczema lead to improved outcomes? Two randomised-controlled trials with process evaluations.

Presenter: Miriam Santer

Co-authors: Mary Steele, Ingrid Muller, Julie Hooper, Beth Stuart, Taeko Becque, Tracey Sach, Sylvia Wilczynska, Kate Greenwell, Lucy Yardley, Matthew J Ridd, Amanda Roberts, Paul Little, Kim S Thomas, Miriam Santer and the rest of the ECO team

Institutions: University of Southampton, University of Nottingham, University of East Anglia, University of Bristol,

Abstract

Problem

Eczema is common and has significant impact on quality of life. The main cause of treatment failure is under-use of prescribed treatments for reasons including insufficient or conflicting advice about how to use treatments. We aimed to develop and evaluate the Eczema Care Online interventions to support self-management amongst young people with eczema and parents/carers of children with eczema.

Approach

Using theory, evidence, and person-based approaches we developed two online behavioural interventions for eczema self-management: one for young people aged 13-25 years (YP) and one for parents/carers of children aged 0-12 years (PC). Two RCTs were carried out to evaluate the interventions. Participants were recruited through primary care and randomised to either: usual care plus access to the intervention; or usual care only.

Participants completed 4-weekly questionnaires online for a year. The primary outcome for both trials was eczema severity over 24 weeks measured by Patient-Oriented Eczema Measure (POEM). Secondary outcomes included: quality of Life, long-term eczema control, enablement, service use and medication use.

Findings

677 participants (337 YP/340 PC) were recruited between Dec 2019 and Dec 2020. Follow-up rates were excellent (90.2% YP/92.4% PC at 24 weeks). Engagement with core content of interventions was excellent with most participants completing the key module (86.5% PC/ 92.8% YP). After controlling for baseline severity and confounders, eczema severity (POEM) amongst young people in the intervention group compared with usual care group at 24 weeks were -1.8 (95% CI -3.4 to -0.2), and amongst parents/carers in intervention group -1.5 (95% CI -2.5 to -0.5), with benefit maintained through until 52 weeks. In the RCT for young people there was a significant treatment-time interaction, with effectiveness developing over several weeks, whereas in the RCT for parents/carers the treatment effect was realised more quickly and was constant over time.Amongst young people, 39% in the usual care group and 56% in the intervention group achieved the minimal clinically important difference (MCID) of 2.5 points at 24 weeks (OR 2.0, 95% CI 1.2 to 3.5; NNT 6), with a similar effect among amongst parents/carers (39% vs 58% respectively; OR 2.1, 95% CI 1.2 to 3.6; NNT 6). Enablement showed an important difference in favour of the intervention group in both trials. (Adjusted mean difference in score between groups at 24 weeks -0.9 (95% CI -1.3 to -0.6) for young people and -0.7 (95% CI -1.0 to -0.4) for parents/carers).

Consequences

Online interventions for eczema self-management enable both young people and parents/carers of children to manage their eczema and provide a useful, sustained benefit in eczema severity over 12 months. Health economic and process evaluations are underway.

Funding acknowledgement

This study presents independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research programme (grant ref No RP-PG-0216-20007). Eczema Care Online (ECO) interventions were developed using Lif

2A.2 Do people with type 2 diabetes enrol and engage with a mobile phone-based text message intervention to improve effective use of their medication?

Presenter: Cassandra Kenning

Co-authors: Cassandra Kenning, Louise Jones, Yuan Chi, on behalf of the SuMMiT-D Team

Institutions: The University of Manchester, University of Oxford

Abstract

Problem

Type 2 diabetes affects over 400 million people worldwide and when poorly managed diabetes can lead to major complications. The impact of non-adherence to diabetes medication in the UK is estimated at £100 million per year in avoidable treatment costs. People are often concerned about starting new medicines and face difficulties in taking them regularly. Use of brief messages to provide education and support self-management, delivered through mobile phone-based text messages, can be an effective tool for some long-term conditions. We have developed messages aiming to support patients' self-management of type 2 diabetes in the use of medications and other aspects of self-management, underpinned by

theory and evidence. The primary aim of this feasibility study was to assess recruitment rates.

Approach

A multicentre individually randomised, six-month, controlled trial in primary care recruiting 209 adults (≥35 years) with type 2 diabetes in England. Participants were randomised to receive short text messages three times a week with messages designed to produce change in medication adherence (n=103) or usual care (n=106).Outcomes: The primary outcomes were participant recruitment, retention and follow-up rates at 26 weeks Additional outcomes were proportion of medical history data, medication/prescribing data and clinical outcomes data (e.g. HbA1c, blood pressure and cholesterol) obtained from patients' medical records. We collected data on health status, healthcare utilisation, medication adherence, and hypothesised mediating variables with a self-report questionnaire. We also collected information on message delivery and interactions with the system.

Findings

In total 209 participants were randomised from 16 general practices. Recruitment rate was 57.4% from 364 expressions of interest. Participants ranged in age from 36 to 96 with a mean age of 63.4 years (SD 10.2). 41.1% were female and 12.9% were from a non-white British ethnic group (27 participants).94.2% (197/209) remained in the trial for the full 6 months with follow-up rates for self-reported questionnaires of 80.4% – 84.7% (health status 81.3%, health care utilisation 80.4% and hypothesised mediating variables 84.7%).On average participants in the treatment group received 79.56 messages during the 6 months (approx. 8200 messages sent), and 89 participants interacted by replying to the system in total with 55 participants interacting with Like/Dislike commands.

Consequences

Recruitment and retention of patients with type 2 diabetes to an SMS text message intervention was feasible. Completion rates of follow-up questionnaires by participants at 6-months was good. A 1000-participant effectiveness and cost effectiveness study is in progress.

Funding acknowledgement

Independent research funded by the NIHR under its Programme Grants for Applied Research as part of a wider programme of work (RP-PG-1214-20003)

2A.3 Supporting self-management of low back pain with an internet intervention in primary care: The SupportBack 2 randomised controlled trial

Presenter: Adam W A Geraghty

Co-authors: Adam Geraghty, Lisa Roberts, Jonathan Hill, Nadine Foster, Beth Stuart, Lucy Yardley, Elaine Hay, David Turner, Gareth Griffiths, Frances Webley, Lorraine Durcan, Alannah Morgan, Stephanie Hughes, Sarah Bathers, Stephanie Butler-Walley, Simon Wathall, Gem

Institutions: University of Southampton, Keele University, The University of Queensland and Metro North Health, University of East Anglia, Aston University.

Abstract

Problem

Low back pain (LBP) is a highly prevalent symptom and a leading cause of disability globally. Most patients are managed in primary care, where NICE guidelines recommend provision of advice to self-manage and stay active. Internet delivered interventions may provide a route to rapid support for behavioural self-management that could be widely applied within primary

care. Although evidence is emerging that more complex technologies (mobile apps linked to digital wristbands) can have some impact on LBP-related disability, there is a need to determine the clinical and cost-effectiveness of highly accessible, web-based support for self-management for LBP.

Approach

'SupportBack' is an intervention accessible from any device with an internet connection (computers, tablets, phones) developed specifically for primary care. It was designed to support self-management through a focus on physical activity and behavioural advice on a range of LBP-related topics (e.g. sleep and mood), offering a tailored self-management programme over 6 weeks. Additionally, a brief physiotherapist telephone support protocol was developed that could be integrated with the internet programme, creating a combined intervention. The aim of the SupportBack 2 multicentre randomised controlled trial (RCT) was to determine the clinical and cost-effectiveness of the SupportBack interventions in reducing LBP-related physical disability in primary care patients, with nested process, qualitative and health economic evaluations. Participants were randomised to 1 of 3 arms: 1) Usual care + internet intervention + physiotherapy telephone support, 2) Usual care + internet intervention, 3) Usual care alone. Utilising a repeated measures design, the primary outcome for the trial was disability over 12 months using the Roland Morris Disability Questionnaire (RMDQ) with measures at 6 weeks, 3, 6 and 12 months. Secondary outcomes included pain intensity, quality-of-life, and patient experience.

Findings

The trial involved 179 primary care practices, with 826 participants randomised (from November 2018 to November 2020), making it the largest of its kind internationally. Analysis is ongoing, comparing each intervention arm to usual care and results will be presented at the conference.

Consequences

To our knowledge, the SupportBack 2 RCT is the first full trial of its kind in LBP within UK primary care. The trial will extend knowledge regarding the effectiveness of highly accessible internet interventions to support self-management in people with LBP consulting in primary care.

Funding acknowledgement

This trial was funded by the National Institute for Health Research (NIHR) Health Technology Programme (HTA, project number: 16/111/78). The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the Health T

2A.4 Established integrated SMS communication in primary care: patterns of use and perceptions of utility

Presenter: Shaine Mehta

Co-authors: Patrick White

Institutions: King's College London

Abstract

Problem

Use of SMS for personal communication with patients by GPs has been limited until recently. All forms of digital communication in clinical practice in primary care have expanded during the COVID-19 pandemic. This has been particularly true of integrated SMS communication. We assessed the patterns of use of integrated SMS by GPs in England and their perceptions of its utility.

Approach

We described the pattern of use of individual GP initiated SMS messages to patients (not as

part of bulk recall) and explored the utility and acceptability of this method of communication in primary care from a GP perspective. We also looked at the impact of the pandemic on use and utility. We obtained GP user data from one integrated SMS provider. Integrated SMS (iSMS) is personalised SMS that is integrated with the patient record. Anonymised user data of an iSMS service was obtained for 3 timepoints (October 2019, March 2020, and October 2020). This was combined with practice characteristic data for England obtained from NHS digital. We conducted an online survey of the perceptions of GP users of this service in Autumn 2020. At the time of survey, the iSMS service was free to use. Responses to survey questions were reported using total numbers and rates. Free text answers were analysed using thematic analysis.

Findings

9123 GPs were using iSMS in October 2019, sending mean 36 SMS per GP per month. Use of iSMS by GP users rose to 12281 by March 2020. More rapid increase was seen by October 2020 with 34940 GP users, sending 57.5 iSMS per GP per month. There is considerable variation in frequency of use by users, weighted practice population and CCG. In the survey, GPs reported that use of SMS saves time and avoids telephone or face to face appointments. They report use during consultations with patients, reporting utility with signposting to local services. GPs reported the covid-19 pandemic increased use of iSMS and changed the sort of information shared with patients. There were some concerns around confidentiality and gaps in understanding of information suitable to send by SMS.

Consequences

Use of personalised SMS communication is now embedded in UK general practice. Patterns of use vary significantly. Use of individual iSMS increased with experience of using SMS. GPs were overall positive about utility. Many GPs reported use during a consultation. This has the potential to significantly alter the patient experience. Further work is needed to explore the variation in use of integrated SMS initiated by GPs and perceptions from a patient perspective.

Funding acknowledgement

Dr Shaine Mehta completed a NIHR In-Practice Fellowship

2A.5 Increasing influenza and pneumococcal vaccination in Australian general practice using automatic SMS and printed patient reminders: a non-randomised feasibility study

Presenter: David Gonzalez

Co-authors: David Gonzalez, Oliver Frank, Carla Bernardo, Jessica Edward, Elizabeth Hoon.

Institutions: Discipline of General Practice, University of Adelaide, Australia.

Abstract

Problem

The Problem:The Australian Immunisation Handbook recommends that at-risk adult patients* should receive influenza and/or pneumococcal (Prevenar13) vaccines. However, vaccination rates among those at risk and aged <65 years (or <70 year for Prevenar13) is very low. Knowledge about eligibility and cost may be factors that influence uptake.The question:Do automatic patient reminders (SMS and printed) increase vaccination coverage. * PATIENTS AT RISK: Those with cardiovascular, neurological, respiratory or haematological conditions, chronic kidney disease, diabetes mellitus or other metabolic conditions, rheumatoid or psoriatic arthritis, ulcerative colitis, Crohn's

disease, with haematological malignancies, or immunocompromised.

Approach

16 participating intervention clinics had 66,999 active patients aged 18-69 years, with 29% of them (n=19,230) considered at risk and eligible because of their health condition. A total of 14,400 SMS reminders were sent to eligible patients in 2021 across all practices. Of those at risk and aged 18-69 years, 37% attended a participating GP and been sent at least one SMS reminder.

Findings

Outcomes:INFLUENZA: In 2020, 33% of patients at risk and aged 18-64 years received the influenza vaccine. In 2021, overall, influenza vaccination among patients who had not been sent any reminder was 17.6% (95%CI 17.0-18.2) compared to 44.2% (95%CI 42.4-45.9) among those sent SMS reminders (p<0.001). Influenza vaccination coverage increased with the number of SMS reminders sent, going from 39.4% (95% CI 37.3-41.5) among those sent only 1 SMS, to 50.3% among those sent 2 SMS (95% CI 46.8-53.8) and 59.8% (95% CI 54.4-65.3) among those sent 3 or more reminders (p-value for trend <0.001).PNEUMOCOCCAL: By March 2021, only 0.4% of patients at risk and aged 18-69 years had received Prevenar13. By October 2021, overall, 7.8% (95%CI 6.9-8.6) of at-risk patients sent SMS reminders had received Prevenar13, compared to only 1.3% (95%CI 1.1-1.5) of patients at risk who had not been sent a reminder (p<0.001) Prevenar13 vaccination coverage increased with the number of SMS reminders sent, going from 5.3% (95% CI 4.3-6.5) among those sent only 1 SMS, to 8.2% among those sent 2 SMS (95% CI 6.4-10.6) and 10.3% (95% CI 7.4-14.4) among those sent 3 or more reminders (p-value for trend <0.001).

Consequences

Take home message for practices:SMS reminders represent a low-cost and effective intervention to increase influenza and pneumococcal vaccination among patients at risk in Australian general practice.SMS reminders kept influenza vaccination rates at higher levels among patients at risk, despite the lower influenza vaccination uptake observed in 2021 because of COVID-19 restrictions.Despite barriers to pneumococcal vaccination such as cost and changing guidelines, SMS reminders increase Prevenar13 vaccination coverage, with patients who receive more reminders showing a greater vaccination coverage.

Funding acknowledgement

This study was funded by a Pfizer International grant.

2A.6 Co-designed online support for people and their families after a diagnosis of dementia: Forward with dementia

Presenter: Jane Wilcock

Co-authors: Marie Poole, Louise Robinson, Henry Brodaty, Lee-Fay Low, Meredith Gresham, Isabelle Vedel, Frans Verhey, Joanna Rymaszewska, Greta Rait on behalf of the COGNISANCE team.

Institutions: University College London, Newcastle University, University of New South Wales, University of Sydney, McGill University, Maastricht University, Wroclaw Medical University

Abstract

Problem

Clinical guidelines are available on how to make a dementia diagnosis, communicate the diagnosis and provide post-diagnosis support. However, when given the diagnosis, people living with dementia and their families often

report receiving insufficient information and negative experiences of the diagnostic process. Post-diagnostic support is reported to be lacking, not focussing on the patient and their quality of life. Dementia is the most feared health condition in the UK and the second most feared in Australia. Fear and stigma affect help-seeking. GPs report a lack of knowledge, time, skills and confidence in diagnosis, its communication and subsequent care of dementia and they would like more training.

Approach

An international three-year research programme with partners in Australia, UK, Canada, Netherlands, and Poland aimed to develop supports for dementia after diagnosis (Cognisance: co-designing dementia diagnosis and post-diagnostic care). We developed and agreed on a co-design approach and undertook 24 co-design workshops with people living with dementia, families, health care professionals and representatives from the voluntary sector. Through consensus and an iterative approach, we developed and designed, content, tools, and function for a new intervention. This was user tested and is currently being promoted through national campaigns and ongoing evaluation.

Findings

A template website with key content was developed which was then translated, culturally adapted and tailored by each research partner. The local working groups informed all aspects of the development and design. It was important that the resource should be available online and printable, current, practical, and relevant to the user. Personalisation was important and individuals can select and engage with content that is relevant to them and their circumstances. Language, tone, and accessibility for the online resource were essential, particularly for people living with dementia, as was access without the need for individual logins or passwords.

Consequences

Through co-design people living with dementia, families and health care professionals agreed upon the need for evidence-based, practical, empathetic and individually tailored resources after a diagnosis of dementia. We collaboratively developed a tailorable online guide Forward with dementia that has an individual planning toolkit for the first twelve months following a diagnosis to help plan for a life with dementia.

Funding acknowledgement

This work is funded by the Alzheimer's Society in the UK

2A.7 Evaluating the implementation of audio abstracts for scientific journal dissemination: a mixed-methods study

Presenter: Angela Huang

Co-authors: Umar Chaudhry, Ryan Jayesinghe, Hajira Dambha, Dr Patrick Redmond

Institutions: King's College London, British Journal of General Practice

Abstract

Problem

Effective knowledge translation underpins evidence-based medicine, improving healthcare quality, and equipping professionals with up-to-date knowledge. Scientific journals increasingly utilise audio-based content to disseminate research, driven by awareness of their responsibility to communicate findings and translate new research into policy and practice. This is particularly important given an estimated 17-year knowledge translation delay, reflecting a significant evidence-to-practice deficit. Consequently, BJGP Open implemented an ‘audio abstract’ (AA) programme (short audio recordings of articles) to enhance readership engagement and dissemination. While studies

have reported audio-content development, many are limited to process explanations and descriptive studies. In particular, there is a lack of qualitative research examining the experiences of research authors and journal readers with audio content. The aim of this study is to evaluate the implementation of audio abstracts within the BJGP Open journal.

Approach

A mixed-methods study combining multiple data collection methods (1) questionnaire (2) interviews (3) analysis of readership figures. An adaptation of the Consolidated Framework for Implementation Research guides the evaluation of the AA programme's implementation and effectiveness. The questionnaire collects opinions of BJGPO readers and authors on familiarity with the AA programme, acceptability, comparison with more traditional methods of journal usage, and impact on dissemination. Interviews with authors and the journal publishing team provides insight into the programme's initial objectives, and the successes and challenges of implementation. Readership metrics data measures the level of engagement viewers had with AAs vs 'control' articles from a variety of article usage, Twitter and video statistics. Triangulation of data sources using constant-comparative analysis will identify similarities and differences in data to produce a rich evaluation of AA project implementation.

Findings

Questionnaire and interview data collection is underway alongside analysis of readership metrics. The questionnaire has been widely distributed through the BJGPO social media channel, newsletter and emailed to 100 authors recently published at the journal. Thirty-six individuals (comprising authors, editors and publishing team) have been invited to interview. Preliminary readership metrics analysis of twenty AA supported articles versus twenty 'control' articles has shown increased engagement with the AA articles (AA abstracts were accessed a total of 1451 times, with 2640 Twitter impressions; control abstracts were accessed 999 times, with 1496 Twitter impressions).

Consequences

This is a novel research area with a robust evaluation framework. The findings will provide evidence for other journals seeking to incorporate audio-based content in dissemination strategies. Results will also highlight areas of programme improvement at BJGP Open to inform future evolution of audio abstracts. Broader implications involve the continued development of research dissemination strategies to shorten the acknowledged prolonged knowledge translation gap.

Funding acknowledgement

No funding

2A.8 Unintended consequences of patient online access to health records: a qualitative study in UK primary care

Presenter: Jeremy Horwood

Co-authors: Andrew Turner, Rebecca Morris, Lorraine McDonagh, Fiona Hamilton, Sarah Blake, Michelle Farr, Fiona Stevenson, Jon Banks, Helen Atherton, Dylan Rakhra, Gemma Lasseter, Gene Feder, Emma Hyde, John Powell, Sue Ziebland

Institutions: Centre for AcaUniversity of Bristol, University of Oxford, University of Manchester, University of Warwick, University College London

Abstract

Problem

Health systems around the world are seeking to harness digital tools to promote patient autonomy and increase the efficiency of care. One example of this policy in England is online patient access to full medical records in

primary care. Since April 2019, all NHS England patients have had the right to access their full medical record prospectively, and full record access has been the "default position" since April 2020.

Approach

To identify and understand the unintended consequences of online patient access their medical records, qualitative interviews were conducted with 10 general practices in South West and North West England. Findings

Online access generated unintended consequences that negatively impacted patients' understanding of their health care, for example patients discovering surprising information or information that was difficult to interpret. Online access impacted GPs' documentation practices, such as when GPs pre-emptively attempted to minimise potential misunderstandings to aid patient understanding of their health care, in other cases, negatively impacting the quality of the records and patient safety when GPs avoided documenting their speculations or concerns. Contrary to assumptions that practice workload would be reduced, online access introduced extra work, such as managing and monitoring access and taking measures to prevent possible harm to patients.

Consequences

The unintended consequences described by both staff and patients show that to achieve the intended consequences set out in NHS policy additional work is necessary to prepare records for sharing and prepare patients about what to expect. It is crucial that practices are adequately supported and resourced to manage the unintended consequences of online access now that it is the default position.

Funding acknowledgement

The DECODE study is funded by National Institute for Health Research (NIHR) School for Primary Care Research and supported by NIHR Applied Research Collaboration West (NIHR ARC West). This work was also supported by the National Institute for Health Resea

2A.9 Co-designing an Adaption of a Mobile Application to Enhance Communication, Safety, and Well-being Among People Living at Home with Mild Dementia

Presenter: Sudeh Cheraghi-Sohi

Co-authors: Karen Davies, Bie Nio Ong, Lorenzo Gordon, Huw Jones and Caroline Sanders

Institutions: University of Manchester, Keele University.

Abstract

Problem

People with dementia progressively suffer physical and psychological problems that require health and social care support. Digital interventions are increasingly being developed to meet needs such as issues in communication, safety and general wellbeing. A mobile app called Hear Me Now (HMN) was identified as having potential to meet some needs of people with mild dementia and their carers. This study aimed to: (1) evaluate the usability, usefulness, and relevance of HMN among community-dwelling people living with mild dementia; (2) examine the benefits and challenges of using HMN to enhance the management of health, safety, and well-being; and (3) determine if adaptions are required in HMN and how these should be designed.

Approach

Participatory qualitative methods were adopted over 3 phases with co-designers (people with mild dementia and their carers). Phase 1: a need analysis adopting a case study approach. 13 cases (dyads of person with

dementia and their carer) were recruited and in-depth, dyadic interviews were conducted and analysed using thematic analysis. Phase 2: participants were trained on the app and post-training interviews were conducted capturing impressions of the app and its alignment to needs identified in phase 1. Participants then tried out the app over several months. Data on individual and group usage was collected and analysed and triangulated with phase 1 data. Phase 3: data was collected regarding HMN's acceptability and to co-design an amended form including support needs for adoption. Normalisation Process Theory was used as an overarching sensitising tool.

Findings

People living with mild dementia and their carers described a range of challenges. Cognitive impairments resulted in issues for maintaining everyday life, valued activities and health-related challenges for those living with, and caring for, people with dementia. Participants described current strategies to aid their ability to manage their needs including the use of other technologies. HMN was felt to have potential relevance to some participants and was variously adopted alongside existing strategies by a minority, with others preferring existing strategies. Re-design issues concerned issues around touch as well as interoperability between app features (perceived to have potential) and to other existing technologies. Support needs for the successful use and adoption of HMN and digital interventions for this user group were also highlighted.

Consequences

Digital interventions have potential to meet some of the needs of people with mild dementia and their carers, however researcher and designers must also consider the design and roll out of technology with multi-factorial and contextual challenges in mind. Finally, designing appropriate support/training to aid potential users, should be as much of a priority as the technology itself.

Funding acknowledgement

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2B.1 Burden of Impaired Oral health in people with severe mental illness: results from UK Biobank and NHANES population based studies

Presenter: Vishal Aggarwal

Co-authors: Jing Kang, Jasper Palmier-Claus, Jianhua Wu, David Shiers, Harriet Larvin, Tim Doran

Institutions: University of Leeds, Lancaster University, Lancashire & South Cumbria NHS Foundation Trust, University of Manchester, University of York.

Abstract

Problem

Oral health outcomes are worse in people experiencing severe mental illness (SMI). However, few studies have explored outcomes in large, nationally representative data. A better understanding of shared risk factors for impaired oral health in SMI would enable targeted prevention.Aims: To investigate the extent to which people with SMI have decayed, missing and filled teeth and periodontal disease and whether this is associated with demographic, life-style, and co-morbid medical conditions.

Approach

Cross-sectional analyses of baseline data from the UK Biobank study (2007 -2010) and from the NHANES (1999-2016). Information was available on self-rated oral health: ache in

mouth, tooth loss, periodontitis stage, and number of decayed, missing, and filled teeth. SMI was identified using clinical diagnosis, antipsychotic medication, and self-report. Demographic (age, gender, ethnicity, socio-economic status), lifestyle (BMI, blood pressure, smoking and alcohol intake, physical activity) and physical co-morbidities (cancer, cardiovascular, respiratory, inflammatory disease and metabolic conditions) were included as potential risk factors for periodontal disease in logistic regression, ordinal logistic regression and zero-inflated negative binomial models.

Findings

Both analyses revealed similar predictors and patterns for impaired oral health. In the UK Biobank cohort, risk of periodontal disease was higher in people with psychosis, regardless of how cases were identified. Patients with a clinical diagnosis had the highest proportion of periodontal disease compared to the general population (21.3% vs 14.8%). Older and female cases were more likely to experience periodontal disease. Lifestyle factors (e.g. smoking) and comorbidities (e.g. cardiovascular, cancer, or respiratory disease) were also associated with periodontal disease in people with SMI. Similarly in the NHANES population in the fully adjusted model, people with SMI were more likely to suffer from tooth loss (OR 1.40, 95% CI: 1.12-1.75). In people with SMI, risk factors identified for poor oral health outcomes were older age, white ethnicity, lower income, smoking history, and diabetes. Engaging in physical activity and daily use of dental floss were associated with better oral health outcomes.

Consequences

People with SMI experience higher rates of periodontal disease and tooth loss than the general population, and certain subgroups are particularly at risk. Prevention and early diagnosis of poor oral health including periodontal disease should be a priority for oral health promotion programmes and should also address modifiable risk factors like smoking, which increase the risk of poor oral health and co-morbid systemic disease. Performing regular physical exercise and flossing may lower the risk of poor oral health. These findings suggest opportunities for targeted prevention and early intervention strategies to mitigate adverse oral health outcomes in people with SMI. Impact: These findings were used to inform an oral health consensus statement that sets out 5-year targets to improve oral health in people with SMI. http://www.lancaster.ac.uk/right-to-smile-project

Funding acknowledgement

Closing the Gap UKRI (Grant reference: ES/S004459/1). Any views expressed here are those of the project investigators and do not necessarily represent the views of the Closing the Gap network or UKRI

2B.2 Deep lessons from 'The Deep End' – a community perspective on the barriers and facilitators to inclusive research.

Presenter: Kate Fryer

Co-authors: Dr Caroline Mitchell, Isobel Hutt

Institutions: University of Sheffield

Abstract

Problem

Research studies are rarely representative of the UK population, in terms of minority representation and the inclusion of people from socio-economically deprived backgrounds. This is even more problematic when those same populations are the ones most affected by the disease in question. Often referred to as 'hard to reach', the reality may be that they are 'easier to ignore'. We explored the barriers and facilitators to inclusive research, from the perspective of local communities.

Approach

Two focus groups were undertaken to explore these issues:'The Deep End' CRN is a group of 9 GP practises in areas of Sheffield with higher-than-average deprivation, and ethnic minority populations. The Deep End patient and public inclusion group is made of patients from these practises, who have been supported to be able to give valuable feedback to researchers, particularly around project design. Focus group one was with this group (6 participants).A rapid analysis by 3 researchers was undertaken, to identify the main themes from the focus group. These were then presented to focus group two, which was made up of local community leaders (4 participants), and focused on how we could address the issues identified in the first focus group.Another rapid analysis was undertaken by 3 researchers, in addition to a literature review identifying 6 papers which presented theories relevant to this topic. A framework was created from the rapid analysis themes and theoretical papers. In-depth analysis was then undertaken according to this framework.

Findings

Our findings highlighted many problematic issues at the interface between communities and academic institutions. These were both historical (e.g. the colonisation of the curriculum) and current (e.g. unsuitable recruitment methods). Further, our findings suggest that building trust between communities and institutions is essential in ensuring inclusive research. This needs to be long term and at a societal level (e.g. building reciprocal relationships between academic institutions and community groups), as well as project specific (e.g. clarity of research processes). Feeding into the central issue, are the core values of researchers (e.g. cultural competence) and the motivations of the public in becoming involved in research (representing, or being representative of, their communities).

Consequences

Our findings indicate that individual researchers and research teams can take action to increase the chances of research opportunities reaching a diverse range of contributors and participants. These actions should be based on core values, including 'cultural competence'. Changes at a societal and institutional level will help to break down barriers between communities and institutions, ensuring that changes in the way we work become embedded. Co-production of research with community groups may be an effective model.

Funding acknowledgement

We would like to thank our funders: NIHR Research Capacity Funding grant from Sheffield Health and Social Care Trust/NHS CCG and Humber CRN Strategic Business Case Grant.

2B.3 Ethnic inequalities in age-related patterns of multiple long-term conditions in the UK: analysis of primary care and self-reported data

Presenter: Brenda Hayanga

Co-authors: Mai Stafford, Catherine L. Saunders, Laia Bécares

Institutions: University of Sussex, The Health Foundation, University of Cambridge

Abstract

Problem

The COVID-19 pandemic and the measures adopted to arrest its spread have illuminated and magnified existing health and economic inequalities. International and UK data suggest that at the height of the pandemic, minoritised ethnic group people were at increased risk of infection and death from COVID-19. Pre-existing long-term conditions were a key driver underlying these health

inequalities and they warrant further investigation to inform recovery efforts. Epidemiological evidence suggests that people from minoritised ethnic groups have a higher prevalence of multiple long-term conditions (MLTCS) but questions remain regarding the patterning of MLTCs by age and how this varies for different ethnic group populations. The aim of this study is to describe age-related patterns of MLTCs, and combinations of physical and mental health conditions across different ethnic groups in England.

Approach

We analysed data from Clinical Practice Research Datalink (CPRD) Aurum 2016, and the English GP Patient Survey (GPPS) 2015-2017, to give us insight into both primary care recorded and self-reported long-term conditions. We described the association between total number of LTCs, and age using a multilevel regression model adjusting for sex and deprivation with patients nested within GP practices. Similar analyses were repeated for two or more physical LTCs and two or more LTCs including a mental health condition.

Findings

For both primary care recorded and self-reported LTCs, people from minoritised ethnic groups had a lower prevalence of MLTCs at younger ages compared to their white counterparts. We observed ethnic inequalities from middle age onwards with steeper age-related increases in MLTCs among Bangladeshi, Pakistani, Indian, Black Caribbean and Gypsy or Irish Travellers. These trends were also seen after adjusting for area-level deprivation. These patterns were similar when physical LTCs were considered. Compared to minoritised ethnic group people, people from the white ethnic group were more likely to report 2 or more LTCs that included a mental health condition.

Consequences

This study finds ethnic inequalities in the prevalence of MLTCs from midlife onwards and identifies ethnic group populations that are at a particular risk of MLTCs. The findings raise several questions concerning the underlying processes that lead to these differential health outcomes. Further research is required to identify these processes and inform efforts to address age-related inequalities experienced by people from minoritised ethnic groups compared with their white counterparts

Funding acknowledgement

The Health Foundation

2B.4 What was the impact of Covid-19 on primary care in prisons in England?

Presenter: Krysia Canvin

Co-authors: Lucy Wainwright, Sarah Senker, Tracey Farragher, Pip Hearty, Paula Harriott, aura Sheard

Institutions: University of Leeds, University of York, University of Manchester, Spectrum CIC, Prison Reform Trust

Abstract

Problem

Concerns expressed at the start of the pandemic about the impact of Covid-19 on the prison estate focused on the vulnerability of the prison population to the virus and managing infection control. Despite the disproportionate burden of disease and proportion of complex health needs amongst the prison population, little attention was paid to how measures introduced to reduce the risk of Covid-19 infection might affect routine healthcare in prisons. This study aimed to understand how the pandemic impacted the delivery and receipt of prison healthcare and to reflect on the implications

for health inequalities. This presentation will provide an overview of the integrated findings, with a focus on the sometimes unexpected consequences of implementing well-intentioned innovations.

Approach

This mixed-methods study comprised: an international scoping review of 12 sources; a nationwide environmental scan of grey literature summarising 52 sources; an interrupted time series analysis of ~25,000 anonymised prison healthcare records from 13 prisons in the North of England for the period 2018-21; and a nationwide qualitative interview study with a purposive sample of 44 participants (decision-makers, healthcare staff and prison leavers). For the ITS analysis, Covid-19 was considered the interruption (beginning March 2020); 24-months prior to March 2020 was the 'pre-interruption' phase. Data up to July 2021 were analysed. Data collected for the scoping review, environmental scan and qualitative interview study were subject to thematic analysis. Integration of the findings from each component was undertaken in a workshop attended by all members of the research team. A triangulation protocol was used to identify where findings converged or complemented each other, and where there was disagreement or silence (absence of data). Individuals with lived experience of imprisonment were involved in a variety of ways throughout the study.

Findings

The triangulated findings indicated an overall initial sharp fall in healthcare provision in prisons at the start of the pandemic followed by gradual reinstatement. Throughout the pandemic access to and delivery of healthcare were severely compromised, often restricted to urgent or high-risk cases. There was considerable variation in the extent of disruption across different types of services and between individual prisons, particularly in the implementation of strategies to minimise harm and the introduction of innovations such as telehealth. Both the environmental scan and the qualitative interviews revealed evidence of unmet needs, increased risk to safety and emotional distress.

Consequences

Our findings suggest that well-intentioned restrictions and innovations may have unintended consequences. The extent of disruption and subsequent unmet need identified across services and the prison estate illuminate the potential for the pandemic to widen health inequalities already experienced by people in the prison system.

Funding acknowledgement

This research is funded by the Economic & Social Research Council (ESRC), as part of UK Research & Innovation's rapid response to Covid-19 (Reference ES/W001810/1)

2B.5 "Gonnae please help me, it's something that ah injected misel wi. Gonnae help me, am scared am gonnae die tonigh." What aspects of support are perceived as most significant in order to prevent drug overdose in people who experience homelessness?

Presenter: Natalia Farmer

Co-authors: Andrew McPherson, Richard Lowrie

Institutions: Glasgow Caledonian University (GCU), NHS Greater Glasgow and Clyde

Abstract

Problem

People experiencing homelessness (PEH) often have problem poly-drug use which leads to fatal/non-fatal drug overdoses. Scotland has the highest rate of drug related deaths as compared to the rest of the UK and the

European Union and Glasgow has the highest rate within Scotland; PEH account for over half of those dying from drug overdose. Harm reduction and innovative means of delivering substitute prescribing have dominated the landscape of service response and policy within the NHS in Scotland but innovative approaches are needed to buck current trends on overdoses in PEH.

Approach

The PHOENIx intervention (NHS Pharmacist and third sector homeless worker are an outreach service in Glasgow city centre offering weekly help with health and social care problems that matter most to PEH) is under evaluation in a pilot randomised controlled trial funded by the Drug Deaths Task Force. An embedded qualitative evaluation aims to explore patients' perspectives of their drug use and overdoses, including aspects of support perceived as most significant in order to prevent subsequent drug overdose. Participants shared their perceptions of the existing pathway for health and social care follow up post drug overdose and experience of the PHOENIx intervention. Qualitative face-to-face semi-structured interviews with a purposive sample of 20 recruited participants in the intervention group were carried out. Thirteen (65%) of those interviewed were male. The sample had a mean age of 44.8 (30-58) years. Thematic analysis captured unanticipated insights and explored patients' perceptions of drug use and support.

Findings

Participants described several components as significant in relation to their perspectives of drug use and support required to prevent drug overdose. Six main themes were identified using thematic analysis: (1) histories of abuse and trauma; (2) unsuitable accommodation; (3) 'escaping' by self-medicating; (4) 'hope' in recovery; (5) stigma and dehumanising treatment; (6) health and care management.

Consequences

This research provides crucial insight from people experiencing homelessness who use drugs, about how they struggle to survive and will be used to shape a new approach to addressing the underlying health and social care needs of people at highest risk of non-fatal and fatal overdoses.

Funding acknowledgement

Drug Deaths Task Force

2B.6 How can the use of urate-lowering therapy for gout by Pacific people in New Zealand be improved? A co-design project

Presenter: Felicity Goodyear-Smith

Co-authors: Malakai Ofanoa, Samuela Ofanoa, Maryann Heather, Siobhan Tu'akoi, Hinamaha Lutui, Nicola Dalbeth, Corina Grey, Bert van der Werf

Institutions: University of Auckland, Alliance Health Plus, Auckland District Health Board

Abstract

Problem

Compared to the rest of New Zealand, South Auckland has a large Pacific population living in high socioeconomic deprivation and with poor health outcomes. Inequalities result from poor access to services and/or inappropriate service delivery. The current health system does not meet Pacific peoples' health needs.

Approach

Using a co-design approach, a Collective consisting of the Pacific People's Health Advisory Group (a Pacific community group), a Pacific practice-based research network, and university researchers have partnered to ask and answer questions of importance and relevance to Pacific health. Once the research question is refined, funding is sought and

Pacific students and postdocs join the team, helping build research capacity. The first project addresses gout. Pacific people in New Zealand have a three-fold prevalence of, and nine-fold hospitalisation from gout compared with non-Pacific people, yet use less regular urate-lowering drugs to prevent gout flare-ups. Building on existing knowledge, we aim to develop, implement and evaluate a novel, innovative and culturally appropriate intervention improving Pacific urate-lowering therapy use. Pacific cultural values include the importance of family, collectivism, spirituality, reciprocity and respect. The research uses the fonofale (meeting-house) holistic model incorporating physical, mental, spiritual, family and cultural socio-demographic determinants of health.

Findings

Proportion with urate blood-level monitoring, and use of urate-lowering medication over past five years nationally and regionally, is underway. An international systematic review and national stocktake of existing gout interventions has been conducted to inform intervention development. The first brainstorming workshop (via zoom due to COVID-19) has generated many ideas with data entered into NVivo and thematic analysis conducted using a general inductive approach. Using these findings an intervention will be further refined in subsequent workshops. The designed intervention will be implemented and process and outcome evaluations conducted, with an implementation framework produced to facilitate further roll-out.

Consequences

A second research question addressing rhematic fever prevention, another high prevalent disorder in Pasifika, using a similar study design, is also underway. These studies aim to enhance health and reduce inequities for Pacific people and contribute to creation of Pacific health knowledge with translation of research findings into Pacific health gains. These are community-initiated questions with the developed interventions created and owned by the intended beneficiaries, which should maximise their use and modification to suit different contexts. On a more general level, the innovative approach we are using in these projects can help inform how the local community and university-based researchers can work collectively and co-design needs-based programmes and interventions to improve health outcomes in vulnerable populations.

Funding acknowledgement

This study is funded by the Health Research Council of New Zealand (Pacific Health Project grant), Reference no: 21/452. The funding body plays no role in the design of the study and collection, analysis, and interpretation of data nor in writing the manu

2B.7 Inequalities in the incidence and management of non-valvular atrial fibrillation in England, 2009 to 2019: cohort study using electronic health records from general practices

Presenter: Alyaa Ajabnoor

Co-authors: Salwa Zghebi, Rosa Parisi, Darren Ashcroft, Martin Rutter, Tim Doran, Matthew Carr, Mamas Mamas, Evangelos Kontopantelis

Institutions: 1. University of Manchester 2. University of York 3.Keele university

Abstract

Problem

Atrial fibrillation is an important risk factor for ischaemic stroke and AF incidence is expected to increase. Guidelines recommend using oral anticoagulants (OACs) to prevent the development of stroke. However, studies have reported the frequent under-use of OACs in AF patients. The objective of this study is to describe non-valvular atrial

fibrillation (NVAF) incidence in England and assess the clinical and socioeconomic factors associated with the under-prescribing OACs.

Approach

We conducted a population-based retrospective cohort study using the UK Clinical Practice Research Datalink (CPRD) database to identify patients with NVAF aged 18 years or over and registered in English general practices between 2009 and 2019. Annual incidence rate of NVAF by age, deprivation quintile, and region was estimated. OAC prescribing status was explored for patients at risk for stroke and classified into: OAC, aspirin-only, or no treatment. Factors associated with OAC under-prescribing were investigated using multinomial logistic regression models.

Findings

Overall age-adjusted incidence of NVAF per 10,000 person-years increased from 20.8 (95% CI: 20.4; 21.1) in 2009 to 25.5 (25.1; 25.9) in 2019. Higher incidence rates were observed for older ages and males. Among NVAF patients at risk of stroke, OAC prescribing increased from 59.8% (59.0; 60.6) in 2009 to 83.2% (82.9; 83.4) in 2019. Non-prescribing of OACs was associated with several conditions, including dementia [relative risk ratio (RRR) 1.76 (1.56; 1.99)], liver disease (1.73 (1.49; 2.00)), malignancy (1.42 (1.36; 1.48)), and ischaemic heart disease (1.30 (1.24; 1.37)). Compared to white ethnicity, black patients were more likely to receive no treatment (1.25 (1.05; 1.49)), and patients living in the most deprived areas were more likely to receive no treatment (1.12 (1.05; 1.20)) than patients living in the least deprived areas. Practices located in the East of England were associated with prescribing of aspirin-only compared to OAC than in practices in London region (1.14 (1.03; 1.26)).

Consequences

The incidence of NVAF increased between 2009 and 2015, before plateauing. Under-prescribing of OACs in NVAF is associated with a range of comorbidities, ethnicity and socioeconomic factors, demonstrating the need for initiatives to reduce inequalities in the care for AF patients.

Funding acknowledgement

The first author (AA) is a PhD student at The University of Manchester, funded by a scholarship from the Saudi Arabian Cultural Bureau. The funders had no role in considering the study design or in the collection, analysis, interpretation of data, writing

2B.8 The lived experience of Long COVID in ethnic minorities in the UK: A Qualitative Systematic Review

Presenter: George Agbakoba

Co-authors: George Agbakoba, Hassan Awan, Tasmiyah Begum, Neil Cook, Alexander Montasem

Institutions: University of Central Lancashire

Abstract

Problem

A proportion of those who suffered from COVID-19 infection developed Long COVID, denoting persistent somatic symptoms in those who have recovered from SARS-CoV-2 infection. People from ethnic minority backgrounds in the UK have shouldered a disproportionate burden in the pandemic, and through implicit biases in disparities in health and social care, contribute to a ‘dual stigma’. There is a lack of research synthesising the existing literature on the experiences of Long COVID in ethnic minorities. This review provides a first insight into the lived experiences of COVID post infection and how it impacts health, wellbeing, and health-

seeking behaviour among people from ethnic minority backgrounds.

Approach

This review aims to explore the lived experiences of people from ethnic communities living with Long COVID, to better understand the differential impact of Long COVID on people's health, wellbeing, and socio-economic circumstances. Comprehensive searches of eight databases were conducted between January 1st, 2020, to July 27th, 2021. The start date was selected with the intention of preceding the dates of the first confirmed cases of COVID-19 in the UK such that no studies would be excluded. Systematic literature searchers were performed in MEDLINE, EMBASE, PsycINFO, ASSIA, CINAHLPlus, AMED, and Web of Science, to July 27th, 2021. Furthermore, COVID-19 specific databases were searched: EPPI Centre living systematic map of the evidence, CORD-19, and The World Health Organization COVID-19 Research Database.

Findings

Our main findings are two-fold. First, our findings highlighted the dearth of information on how specific dimensions of ethnicity may affect the mechanisms of differential exposure, vulnerability, and consequences, of Long COVID. Second, from the current evidence base, ethnic minorities with Long COVID reported a range of negative healthcare experiences when accessing health care services. Illness narratives from ethnic minorities reported feelings of disinterest and support from clinicians whom they consulted for their heterogeneous symptoms. One consequence of this has been an increased experience of self-advocacy which in turn helped many to develop resiliency through self-management strategies in light of perceived suboptimal clinician response.

Consequences

Currently, Long COVID research is largely western centric carrying the risk of creating a false impression of a homogenous groups that do not reflect subtle nuances and fluid racial and ethnic identities. Public health intervention research must prioritise inclusion and engagement of ethnic minorities at all stages through community participatory research. Our findings also suggest that ethnic minorities with Long COVID wanted to be listened to, understood, and acknowledged by the doctors they consulted. For doctors to achieve a deeper understanding of people with Long COVID, integrating cultural humility into their daily practice can help to acknowledge the unique elements of individual identity. This encompasses acknowledging patient testimonies, how patients define themselves, validating their experiences, developing partnerships, and practicing self-reflection.

2B.9 What does relationship-based, holistic care look like for South Asian men with long-term conditions experiencing emotional distress?

Presenter: Hassan Awan

Co-authors: Tom Kingstone, Nadia Corp, Carolyn A. Chew-Graham

Institutions: Keele University

Abstract

Problem

People with long-term conditions (LTCs) are twice as likely to suffer from depression than the general population. People with physical-mental comorbidity have a poorer quality of life, worse clinical outcomes and increased mortality than those with physical conditions alone. South Asians (SAs) are the largest

minority group in the UK, and are more likely to have certain LTCs such as diabetes and heart disease. Asians are less likely to recognise symptoms which may represent mental health problems and perceive a need for support. Furthermore, people from ethnic minorities are an under-served group within healthcare services, manifested for example with reduced access and uptake of mental health services. There is limited research on the experiences of men of SA origin with comorbid physical and mental health problems in primary care.

Approach

A qualitative study explored the perspectives of men of SA origin with diabetes and/or heart disease and GPs working in areas with higher densities of SAs. Recruitment for SAs was from community settings and GPs working in practices serving catchment areas with higher proportions of SAs. Semi-structured interviews took place online and were digitally recorded with consent. Thematic analysis was conducted concurrently and informed iterative modifications of the topic guide. Topics explored in interviews included: understanding, experiences and help-seeking behaviour for emotional distress, support received and gaps in services. GPs were also asked about barriers and facilitators to care. An ethnically appropriate PPIE group was convened and inputted throughout all stages of research.

Findings

Seventeen SA males (from India, Pakistan and Bangladesh) with LTCs and 18 GPs were interviewed. SAs described a lack of trust in GPs due to different health beliefs and unacceptability of treatments offered. GPs related this to poor concordance based on reduced health literacy. The social determinants of distress were described as fundamental to creating inequalities, which were exacerbated by the covid pandemic due to access and language barriers. Relationship-based care was felt to build trusting relationships between GPs and SAs with LTCs experiencing emotional distress by understanding patients holistically within their life circumstances and co-navigating cultural health beliefs. SAs and GPs described the need to build cultural capital within the SA community by culturally-sensitive care and services and partaking in community outreach and engagement programs.

Consequences

The findings provide a greater understanding of what relationship-based and holistic care mean for SAs with LTCs experiencing emotional distress. This should inform its recognition and management, and can be used to overcome barriers to care and create a shared understanding between SAs and GPs. The research has the potential to influence policy-makers and commissioners about service provision, given the need described by both GPs and SAs with LTCs for culturally-sensitive services and developing cultural capital are a means of building trust.

Funding acknowledgement

Wellcome funded

2C.1 Can a digital 'open and close' intervention improve general practice consultations?

Presenter: Chris Salisbury

Co-authors: Chris Salisbury, Anne Scott, Geoff Wong, Scott Walter, Jude Hancock, Tom Palmer

Institutions: University of Bristol, University of Oxford, Bristol North Somerset and South Gloucestershire CCG

Abstract

Problem

For some patients GP consultations are too short. At the start of a consultation, patients may not mention some things that are

bothering them. The end of the consultation can feel rushed and patients may not remember everything the GP said. The Consultation Open and Close (COAC) Study aimed to develop a complex intervention to address patients' concerns more comprehensively and help them remember advice in general practice, and to test the feasibility of a cluster RCT of this intervention.

Approach

The intervention comprised a patient-completed pre-consultation form and a doctor-provided summary report at consultation closure. A person-based approach was used to develop and iteratively test both elements. An online system allowed patients to self-complete the pre-consultation form which was summarised in a colour-coded report and shared with GPs. An electronic template was designed to automatically generate the consultation summary report. The intervention was tested in six practices: four randomised to intervention, two to control. Patient-reported outcomes were collected via baseline and follow-up patient questionnaires and data on follow-up consultations and consultation content extracted from the patient record. Qualitative analysis included interviews with GPs, patients and administrators analysed in a realist framework. Quantitative analysis focused on recruitment and follow-up rates to assess feasibility of a future trial.

Findings

Seventy-one patients and practice staff were interviewed across the development and feasibility phases. Both the pre-consultation form and the summary report were acceptable to patients and GPs, but useful for different types of patients. The pre-consultation questionnaire identified issues that patients found difficult to voice. Having the information in writing helped GPs to quickly focus on what mattered. Patients felt listened to and were more satisfied with their consultation. The technology for sending pre-consultations forms was administratively complex. The summary report improved patients' understanding of follow-up arrangements, and provided a memory aid they could share with their family. GPs reflected more on how to plan and communicate follow-up. The summary was most useful for consultations when safety-netting advice was important or for patients with complex follow-up or difficulty remembering.In the feasibility RCT, 195 patients were recruited. Recruitment rates were high but so was attrition, so criteria to proceed to full trial were not met.

Consequences

Both the pre-consultation form and the summary report showed important potential benefits. They should be considered as separate interventions and evaluated independently. The technology to send pre-consultation forms needs further development to allow seamless integration with GP computer systems. The additional time needed to generate summary reports meant GPs preferred to use it selectively in patients most likely to benefit. Collection of outcome data using online questionnaires was efficient but associated with high attrition, so alternative approaches to recruitment and retention are needed before a full RCT is feasible.

Funding acknowledgement

This study was funded by the National Institute for Health Research (NIHR) as an Research for Patient Benefit (RfPB) grant. Professor Chris Salisbury is an NIHR Senior Investigator. The views expressed are those of the authors and not necessarily those o

2C.2 What are primary care professionals' views on remote consulting during the COVID-19 pandemic and how has it impacted on service delivery for people with asthma?

Presenter: Flora Flinn

Co-authors: Hannah Appleton, Vicky Hammersley, Kirstie McClatchey, Hilary Pinnock, Tracy Jackson

Institutions: University of Edinburgh, Asthma UK Centre for Applied Research, University of Edinburgh

Abstract

Problem

Since March 2020, when the first lockdown due to the COVID-19 pandemic enforced social distancing, primary care clinicians have conducted consultations remotely via telephone, video and asynchronous platforms to reduce the spread of the virus.We aimed to explore primary care practitioners' views on remote consulting during the pandemic and how it affected service delivery for people with asthma.

Approach

In March 2021, four semi-structured interviews were conducted with GPs and nurses from across the UK and a short online survey was developed and piloted with 23 clinicians. In January 2022, six further interviews were conducted with five GPs and one community pharmacist. All interviews were audio-recorded, transcribed verbatim and analysed thematically.

Findings

The 2021 interviews and survey revealed how the pandemic had driven new innovations but found that remote consultations had had a mixed impact on practice. The quality of technology and provision of adequate infrastructure affected success and further training and support for clinicians was deemed necessary. It was felt that remote consulting presented specific barriers to delivery of high-quality care such as challenges in assessing severity of a presentation without physical examination and in establishing rapport with patients. Participants saw a role in the future for remote platforms to be integrated alongside face-to-face consultations in a hybrid model. A year later, the 2022 interviews reiterated these themes and questioned whether remote consulting was an effective way of reducing the workload in primary care. Telephone and instant messaging were favoured over video consulting which was described as too time consuming to set up and beset by technological issues. There were also reports of reduced job satisfaction amongst GPs when consulting remotely. Remote consulting was felt to improve the convenience and accessibility of on-going asthma care and therefore benefited supported self-management. However, it was felt that the lack of a visual aspect to the consultation made remote methods unsuitable and unsafe for assessment of acute exacerbations or for ongoing education and assessment of inhaler technique.

Consequences

Clinicians felt generally positive about remote consultations but described limitations in terms of quality and suitability for all consultation types and patient groups. Further infrastructure and training needed to be supplied in order to support primary care clinicians with remote consulting. Findings of this study could be used to improve remote platform use in primary care and are also of relevance to policymakers. Additionally, there are emerging concerns about the workload and efficiency of remote consulting as well as GP job satisfaction that could hinder the sustainability of the approach.

2C.3 What is it about paramedics working in general practice that works (or doesn't work)? A rapid realist review.

Presenter: Hannah Stott

Co-authors: Prof Sarah Voss, Dr Matthew Booker, Dr Justin Jagosh, Dr Trudy Goodenough, Dr Behnaz Schofield, Associate Prof Andy Gibson, Public contributor group

Institutions: University of the West of England, University of Bristol

Abstract

Problem

General practice in the UK is under pressure to meet a growing demand and there is a lack of GP workforce to meet this need. Paramedics are one group of staff being used to provide additional resource. Little is known about what models of paramedic working are in place in UK general practice, and how variation between these models may impact on the success of the paramedic role in this setting. This realist review aimed to develop initial programme theories to explore how the role of paramedics and models of working in general practice may impact on patient, practice and paramedic outcomes in different contexts. This review is the first stage of a realist evaluation which will test these theories at case sites across England to determine the clinical and cost effectiveness of the role (NIHR:132736).

Approach

The review comprised:

1) Empirical literature searches (databases n=8; date limited to after 2002)

2) Grey literature searches (search engines n=2; healthcare websites n=6; social media websites n=2; reference list searches n=4)

3) Semi-structured interviews with system leaders involved with the implementation of paramedics in general practice (n=8)

4) Stakeholder event with professionals and members of the public to clarify areas of priority and identify any gaps in theoretical development. (n=22)

Data sources were first analysed separately and then amalgamated using a realist approach that explored the data for novel or causal insights.

Findings

The empirical search identified 2235 records which were screened on title and abstract, and 32 were included. The grey data search identified 232 sources (outside the social media searches), and 87 contained relevant insights. Data from these sources were synthesised with the interview analysis and consensus event analyses into a single narrative document which grouped a set of initial programme theories into eight areas: [1] Paramedic scope of practice; [2] Education, qualifications and titles; [3] Supervision and communication; [4] Role boundaries and workload; [5] Paramedic prescribing; [6] Patient experience of the role; [7] Rotational models of working and [8] Beyond general practice: impact on secondary care.The search confirmed there are a wide variety of models of paramedics working in general practice in operation throughout the UK. The success of models varied depending on how mature and embedded the paramedic service was and according to the eight theory areas.

Consequences

These findings provide a framework for making future recommendations about successful implementation of paramedics working in general practice. Key considerations will pertain to how and why service models impact on: patient clinical

outcomes, safety, and health service experience; GP and practice workload and satisfaction, and health service resource use.

Funding acknowledgement

This research is part of a larger study funded by NIHR (HS&DR) REF: NIHR132736

2C.4 The impact of the COVID-19 pandemic on the implementation of the ReSPECT process: which patients received a ReSPECT form, what was documented, and what were the patient outcomes?

Presenter: Adam McDermott

Co-authors: C A Woodall, C Chamberlain, L E Selman, L Pocock

Institutions: University of Bristol

Abstract

Problem

ReSPECT (Recommended Summary Plan for Emergency Care and Treatment) is a UK Advance Care Planning initiative, aiming to standardise the process of creating personalised recommendations for a person's clinical care in a future emergency, and therefore improve patient outcomes. Despite this, implementation across an entire healthcare area and any subsequent outcomes have not yet been studied. Therefore, it is unclear if patients with a ReSPECT form benefit from the positive outcomes associated with good advance care planning. The implementation of ReSPECT in the Bristol, North Somerset and South Gloucestershire (BNSSG) area overlapped with the first UK COVID-19 wave. This study will aim to describe the characteristics of patients in the BNSSG area who completed the ReSPECT process before, during, and after the first wave; describe the content of ReSPECT forms; and analyse outcomes for those patients who died with a ReSPECT form. This is to determine the equity of the ReSPECT form implementation process and the benefits to patients and their local services.

Approach

Data will be exported from the Systemwide Dataset, a pseudonymised database linking data from organisations providing health and social care to BNSSG patients. This routinely collected data from BNSSG patients will be analysed in two streams: 1. An observational cross-sectional study of patients who completed the ReSPECT process October 2019- October 2020. Summary statistics will be used to describe sociodemographic and medical variables and ReSPECT form items. These variables will be described across three periods of the first COVID-19 wave. 2. A retrospective cohort study of patients who died October 2019- October 2020. Outcomes during this period will be compared between those patients who had completed the ReSPECT process and those who had not, using adjusted regression models. These outcomes are: A&E attendances, emergency admissions, district nurse visits, hospice referrals, anticipatory prescriptions and whether the patient died in their preferred place of death.

Findings

Results will be presented at conference.

Consequences

This study will explore the ReSPECT form's link to the evidence base for good advance care planning. Additionally, we aim to highlight barriers to implementation (COVID-19 related and otherwise) and any issues of implementation inequality. Our findings will potentially inform future implementation processes across other areas of the UK.

Funding acknowledgement

This study will be completed by Dr McDermott whose role is funded the Severn Deanery as part of an Academic Clinical

Fellow in General Practice training programme. This programme is NIHR-badged.

2C.5 Associations of Burnout with the Career Engagement of Physicians and the Quality of Patient Care

Presenter: Alex Hodkinson

Co-authors: Anli Zhou, Judith Johnson, Keith Geraghty, Ruth Riley, Andrew Zhou, Efharis Panagopoulou, Carolyn A. Chew-Graham, David Peters, Aneez Esmail, Maria Panagioti

Institutions: University of Manchester, University of Leeds, University of Birmingham, University of Cambridge, Aristotle University of Thessaloniki, Keele University, University of Westminster

Abstract

Problem

Burnout, defined as a work-related syndrome involving emotional exhaustion, depersonalisation, and a sense of reduced personal accomplishment is reaching global levels among physicians, and the Covid-19 pandemic has only further exacerbated this problem. Physicians with burnout often report poor work-life balance and career dissatisfaction. However, past reviews that focused on the potential impacts of physician burnout on healthcare efficiency have overlooked the association of burnout with the career engagement of physicians. Thus, a joint synthesis of the links of physician burnout with the career engagement of physicians and the quality of care is urgently needed. These reciprocal relations are highly important for governments and policy organisations to encourage financial investments and policies to mitigate physician burnout internationally. Therefore, in this systematic review and meta-analysis we examined the association of physician burnout with (a) the career engagement of physicians focusing on job satisfaction, career choice regret, and turnover intention; and (b) the quality of patient care focusing on patient safety incidents, low professionalism, and patient satisfaction.

Approach

Systematic searches of the four databases for observational studies assessing the association of physician burnout (including emotional exhaustion, depersonalisation, and personal accomplishment) with the career engagement and the quality of patient care were carried out up to May 2021. Data were extracted and checked for consistancy by 50% of the authors. Random-effect models were used to calculate the pooled odds ratio. Career engagement outcomes include career choice regret, career development, job satisfaction, productivity loss and turnover intention. Quality of patient care outcomes include low professionalism, patient safety incidents, and patient satisfaction.

Findings

We identified 170 observational studies including 239,246 physicians for meta-analysis. Overall burnout in physicians was associated with almost a four-fold decrease in job satisfaction (odds ratio 3.79, 95% CI 3.24 to 4.43, k=73 studies, n=146,980 physicians), over three-fold increase in career choice regret (3.49, 2.43 to 5.00, k=16, n=33,871), and three-fold increase in turnover intention (3.10, 2.30 to 4.17, k=25, n=32,271). Overall physician burnout was also associated with a two-fold increase in patient safety incidents (2.03, 1.68 to 2.44, k=35, n=41,059), a two-fold decrease in professionalism (2.33, 1.96 to 2.70, k=40, n=32,321) and a two-fold decrease in patient satisfaction (2.22, 1.38 to 3.57, k=8, n=1,002). The link between burnout and poorer job satisfaction was greatest in hospital settings, and in elderly physicians working in emergency medicine. The link between burnout and patient care outcomes was greatest in younger physicians working in emergency medicine.

Consequences

Our systematic review and meta-analysis, provides the most compelling evidence to date that physician burnout jeopardizes the function and sustainability of health care organisations primarily by contributing to the career disengagement and secondarily by reducing the quality of patient care. Moving forward following the Covid-19 pandemic, healthcare organizations urgently need to invest more funds and efforts in implementing evidence-based strategies to help mitigate physician burnout across specialities and particularly in emergency medicine.

Funding acknowledgement

National Institute for Health Research (NIHR) School for Primary Care Research.

2C.6 Understanding patient views and experiences of the IDENTIfication of PALLiative care needs: a qualitative investigation (IDENTI-Pall)

Presenter: Isabel Leach

Co-authors: Sarah Mitchell, Nicola Turner, Catriona Mayland

Institutions: University of Sheffield

Abstract

Problem

Primary healthcare teams deliver the majority of palliative and end-of-life care in the community. There is growing interest in the use of palliative care identification tools in primary care to identify patients with unmet palliative needs, including searches of electronic patient records. Early identification of palliative care needs ensures patients are given a voice, space, and time to be involved in the collaborative decision-making process and describe their wishes.There is no previous research into the experiences and perspectives of patients about the nuanced process of identifying palliative care needs. This research will address that gap and inform future practice by increasing understanding of the views and perceptions of patients about this identification process and the impact it has had on their care.

Approach

In order to obtain in-depth, detailed insights into patient experiences, 10-12 qualitative, semi-structured interviews will be conducted with adults with advanced serious illness, identified via GP practices across Sheffield. Participants will be aware of their palliative care needs through discussions with their primary care team and/or will receive specialist palliative care. Thematic Analysis of interview transcripts is underway, taking an inductive and iterative approach. PPI has, and will continue, to inform each stage of the research, including the design of participant information resources and data analysis.

Findings

This study is a work in progress, with completion expected in June 2022. From the interviews completed thus far, it is clear that patients have very diverse experiences of the identification of their palliative care needs. There are three emerging, inter-related themes that are relevant to current clinical practice: 1. Sharing prognostic uncertainty: A lack of honest and open communication surrounding prognostic uncertainty can prevent a shared understanding of the potential benefits of palliative care.2. Compassionate communication: Face-to-face interactions are important to discuss palliative care needs, alongside the time and space to process the information and ask questions.3. Benefits of identification in primary care: A palliative ‘label’ improves access to primary care teams. Frequent check-ins with GPs are highly valued by patients approaching the end of their life.

Consequences

Themes generated from the qualitative interviews will be used to develop patient-centred recommendations for clinical practice and policy in relation to the use of palliative care identification tools. One of the planned dissemination outputs is a guide to communicating with patients following identification of their palliative care needs. This guide will be derived from patient experiences to ensure that the use of palliative identification tools leads to meaningful conversations with patients about their care.

Funding acknowledgement

The study is being conducted as part of a programme of research for SM's Yorkshire Cancer Research CONNECTS Senior Research Fellowship: Improving the experiences of patients through identification of their unmet supportive and palliative care needs at a t

2C.7 Does Evergreen Life's combination of digital personal health record with access to health services improve users' health outcomes?

Presenter: Jack Higgins

Co-authors: Dr Jack Higgins, Lee Campbell, Dr James Harmsworth-King, Dr Brian Fisher MBE

Institutions: Lancaster University, Evergreen Life

Abstract

Problem

Digital services and personalised content can nudge people to change their health behaviours. This appears to be the case across countries, languages and for different aspects of health. This analysis aims to assess the link between the use of these digital services and observed health outcomes, using primary care record, app usage, and patient-level data from Evergreen Life. Evergreen Life is a healthcare company that offers free app- and web-based Personal Health Record (PHR) solutions to over 850,000 users. A user's PHR is comprised of: their Primary care record, which is retrieved from clinical systems through partnership with the NHS; patient reported outcome measures, which enable the user to record longitudinal momentary assessments (including self-reported measurements and wellness questionnaires), view relevant articles hosted on the Evergreen Life website, and encourage ("nudge") users towards healthier lifestyles; Genetic data, from a paid-for DNA testing service, which enables users to make informed decisions about their lifestyles. In addition to the PHR patients can also access Digital Health Services such as appointment booking, repeat prescriptions and GP messaging.

Approach

To investigate the association between using Evergreen Life and objective health outcomes, two samples were constructed for Systolic Blood Pressure and HbA1c levels, respectively. We utilise the fact that many Evergreen Life users have measurements in their GP records that predate the creation of their Evergreen Life account. In each sample, only users whose blood pressures (>140/90 mmHg) and HbA1c levels (>42 mmol/mol) are initially high are included, to allow for analyses of the mean within-user change in measurements before and after their accounts were created. To supplement this, demographic and app usage data were included at the user level. Statistical models on both the mean change in measurements, and probability of returning to a normal range are analysed.

Findings

Preliminary results show significant reductions in both systolic Blood Pressure (-19.13 mmHg, $p<0.001$) and HbA1c levels (-2.49 mmol/mol, $p<0.001$) post-account creation. 65.3% of users' mean systolic blood

pressures reduced into the normal range (below 140 mmHg), and 26.8% of users' HbA1c levels reduced into the normal range (below 42 mmol/mol). There is some heterogeneity in sub-groups of users: the oldest users show the largest reductions in blood pressure (aged 70+ years), and the reduction in mean HbA1c is only found amongst the least deprived users. Finally, users who access digital health services through the web-based version of Evergreen Life experience larger reductions in blood pressure than the App-based version.

Consequences

Digital PHRs that provide Health Services may have some effectiveness in improving the health outcomes considered above, but that this effect might be reduced in more deprived populations, and that the method of digital interaction could be a key factor in their effectiveness.

Funding acknowledgement

The authors are employed by Evergreen Life, who provide the data for the analyses.

2C.8 What are the drivers and population health outcomes associated with persistent high GP turnover in English general practices?

Presenter: Rosa Parisi

Co-authors: Rosa Parisi; Yiu-Shing Lau, Peter Bower; Katherine Checkland; Jill Rubery; Matt Sutton; Sally Giles; Aneez Esmail; Sharon Spooner; Evangelos Kontopantelis

Institutions: Division of Informatics, Imaging & Data Sciences, University of Manchester (UoM); Health Organisation, Policy and Economics (HOPE) Group, UoM; Division of Population Health, Health Services Research and Primary Care, UoM; NIHR Greater Manchester Patient Safety Translational Research Centre, UoM; Alliance Manchester Business School, UoM

Abstract

Problem

English primary care is in crisis. Previous work highlighted that some practices have persistent high GP turnover. There is a need to understand whether there are specific factors associated with GP persistent high turnover and whether these practices are associated with poorer outcomes. This study aims to identify predictors of persistent high turnover and associations with emergency hospital attendances and admissions.

Approach

Longitudinal study using GP workforce datasets and GPs-by-general practices data, linked with HES data. We examined population and practice characteristics associated with persistent high turnover between 2007-2019. We also investigated the association between persistent high turnover and emergency hospital activity between 2009-2017. Persistent high GP turnover was defined as GP turnover >10% for at least 3 consecutive years. Relevant characteristics examined for association with persistent high turnover included: practice-area social deprivation, size of the practice, rurality, NHS regions, and the Quality and Outcomes Framework (QOF) prevalence of seven serious conditions (coronary artery disease, diabetes, stroke, hypertension, heart failure, chronic kidney disease, chronic obstructive pulmonary disease). Next, the association between persistent high turnover and relevant outcomes was examined, including: emergency hospital attendances or admissions per 100 people. Logistic regression or linear regression models for panel data with random effects were used.

Findings

An average of 374/7525 (5%) practices were classified as having had persistent high

turnover each year during 2007-2019, with a maximum of 688 in 2014. Characteristics associated with higher levels of persistent turnover included practice location deprivation (odds ratio of highest deprivation quintile vs lowest, Odds-Ratio (OR) 1.21; 95% CI: 1.01-1.46), listsize (OR of highest listsize quintile vs lowest 18.6, 95% CI: 15.00-22.99), QOF morbidity burden across serious conditions (OR per one unit increase of 1.03, 95% CI: 1.02-1.04). We also found evidence of regional variation, after controlling for the other covariates, with the highest adjusted rates observed in NHS Cumbria and North East, South Central and West Midlands. Persistent high turnover was associated with higher emergency hospital attendance and admission rates. A practice with persistent high turnover will experience on average 27 A&E attendances and 10 emergency admissions per 100 people compared to 25 and 9 for a practice with the same measured characteristics but no persistent high turnover, respectively.

Consequences

One of the factors associated the experience of high turnover over a number of years is deprivation of the area where the practice is located, highlighting the need for more support for these practices. Persistent high turnover practices are independently linked with poorer outcomes such as higher numbers of emergency hospital attendances and admissions compared to practices without persistent high turnover. These problems affect people's quality of care and contribute to avoidable health system costs. Strategies and policies are needed to support practices facing challenges with GP turnover.

Funding acknowledgement

This project has been funded by the Health Foundation as part of the Efficiency Research Programme. All decisions concerning analysis, interpretation, and publication are made independently from the funder.

2C.9 Running an asthma prescribing Quality Improvement (QI) programme during the COVID-19 pandemic: lessons learned

Presenter: Anna De Simoni

Co-authors: Hajar Hajmohammadi, Jim Cole, Paul Pfeffer, Chris Griffiths, Sally Hull

Institutions: Wolfson Institute of Population Health, Queen Mary University of London

Abstract

Problem

Two in three of asthma deaths in the UK could be prevented by better management. In East London, hospitalisation with asthma is 14% above the average for London. Hospital admission rises from 1.3 to 7.5% as the number of SABA inhalers prescribed rises from 1–3 to >12/year. There is evidence that electronic alerts may reduce excessive prescribing of Short Acting Beta Agonist (SABA) inhalers.A quality improvement programme to end in September 2022 with the aim of reducing the excessive prescribing of Short Acting Beta Agonist (SABA) inhalers, included:

- In-consultation prompts for patients overusing SABA
- Lists of asthma patients overusing SABA
- Education sessions, guidelines and material for remote asthma reviews
- Feedback of performance compared to local peers.

The lockdowns associated with COVID 19 were associated with major changes in practice consultation patterns including a shift to online asthma reviews. Changes in patient behaviour led to a significant reduction in primary and secondary care attendance for asthma exacerbations, and a reduction of 36%

in emergency admissions for asthma in Scotland and Wales.

Approach

By comparing the pre- and pandemic prescriptions for asthma medications we aimed to quantify the amount of disruption to the programme.We analysed the pattern of prescribing for SABA, ICS and oral steroid prescriptions for the two years prior to the pandemic and for the period from March 2020 to February 22.A predictive model is used to generate the expected pattern of prescribing during the COVID peaks.

Findings

For SABA, ICS and oral steroids we observed the expected seasonal variation in the pre-pandemic years, followed by a spike in spring 2020 and then a fall-off in prescription issues during the first and second lockdown period. The falloff in oral steroid and ICS prescription demand may be a result of reduced exposure to circulating respiratory infections, or reduced contact with health services and use of medications during COVID peaks.

Consequences

The changes in practice and patient behaviour driven by the COVID 19 pandemic may be greater than changes generated by the quality improvement programme.Practices had less capacity to engage with new computerised tools or new material for remote asthma reviews.A successful QI programme requires practice stability to allow for engagement, delivery and effective monitoring.

Funding acknowledgement

Barts Charity reference MGU0419. REAL-Health: REsearch Actionable Learning Health Systems Asthma programme.

2D.1 The Association between Multimorbidity and Out-Of-Pocket Healthcare Expenditure among Community-Dwelling Adults: findings from The Irish Longitudinal Study on Ageing (TILDA)

Presenter: James Larkin

Co-authors: Brendan Walsh PhD(2,3), Frank Moriarty PhD(1), Barbara Clyne PhD(1,5), Patricia Harrington PhD(5), Susan M. Smith MD(1,3)

Institutions: (1) RCSI University of Medicine and Health Sciences, Dublin, (2)Economic and Social Research Institute, Dublin 2, (3) Trinity College Dublin, Dublin 2, (4) The Irish Longitudinal Study on Ageing, Trinity College Dublin, Dublin 2, (5) Health Information and Quality Authority, Dublin,

Abstract

Problem

Individuals with multimorbidity utilise more health services and take more medicines. This can lead to high out-of-pocket (OOP) healthcare expenditure. There are many potential consequences of high OOP healthcare expenditure, including reduced quality of life as well as non-adherence to medication and healthcare non-attendance, which in turn can have negative health consequences. This study therefore aimed to assess the association between multimorbidity (two or more chronic conditions) and OOP healthcare expenditure in a nationally representative sample of adults aged 50 years or over.

Approach

We conducted a cross-sectional analysis of data collected in 2016 from Wave 4 of The Irish Longitudinal Study on Ageing. Participants were community-dwelling adults aged 50 years and over. A generalised linear model with log-link, and gamma distributed

errors was fitted to assess the association between multimorbidity and self-reported OOP healthcare expenditure (including GP, emergency department, outpatients, specialist medical consultations, hospital admissions, home care and prescription drugs). The regression controlled for demographic and entitlement variables. A descriptive analysis of the relationship between multimorbidity and financial burden of healthcare was also conducted. Financial burden was defined as proportion of equivalised household income (household income divided by number of people in the household, with a weight of one for the first adult, 0.5 for each additional adult and 0.3 for each child) spent on healthcare. The research question and the conclusions were developed in consultation with a panel of people living with multimorbidity.

Findings

Overall, 3,453 (58.5%) participants had multimorbidity. Individuals with multimorbidity spent more on average per annum (€777.1 for two conditions, €853.9 for three or more conditions), than individuals with one condition (€651.9) or no conditions (€451.8). Prescription medicine expenditure was the largest component of expenditure. People with multimorbidity on average spent more of their equivalised household income on healthcare (6.8% for two conditions, 9.4% for three or more conditions), than people with one condition (5.9%) or no conditions (3.9%). A strong positive association was found between number of conditions and OOP healthcare expenditure (p<.001). A strong negative association was found between eligibility for free primary/hospital care and heavily subsidised medicines and OOP healthcare expenditure (p<.001).

Consequences

This study shows that having multimorbidity in Ireland increases OOP healthcare expenditure, even when controlling for several sociodemographic factors. This places a large financial burden on those with multimorbidity, which can lead to reduced quality of life as well as non-adherence to medication and healthcare non-attendance which in turn can have negative health consequences. This highlights the need for this financial burden to be considered when designing healthcare/funding systems to address multimorbidity, so that access to essential healthcare can be maximised for those with the greatest need.

Funding acknowledgement

This study is part of JL's PhD, which is funded by the Health Research Board [CDA-2018-003]. TILDA, the original study on which this is based, is funded by the Irish Department of Health, Irish Life and Atlantic Philanthropies. BC is funded by Health Rese

2D.2 Mitigating the psychological impacts of COVID-19 restrictions in older people with long-term conditions: a qualitative study using the Theoretical Framework of Acceptability

Presenter: Leanne Shearsmith

Co-authors: Peter Coventry, Claire Sloan, Elizabeth Littlewood, Leanne Shearsmith, David Ekers, Della Bailey, Dean McMillan, Andrew Henry, Samantha Gascoyne, Lauren Burke, Suzanne Crosland, Eloise Ryde, Gemma Traviss-Turner, Rebecca Woodhouse, Simon Gilbody

Institutions: 4. School of Medicine, Keele University, Staffordshire, ST5 5BG, Department of Health Services, Seebohm Rowntree Building, University of York, Heslington, York, YO10 5DD,Tees, Esk and Wear Valleys NHS FT. Research & Development Office, Flatts Lane Centre Flatts Lane, Normanby, Middlesbrough, TS6 0SZ, School of Medicine, Leeds University, Leeds, LS2 9NL

Abstract

Problem

Older people with long-term conditions (LTCs) are at increased risk from COVID-19 (C19) infection. Older adults with LTCs are already at increased risk of mood disorders and risk of depression is increased by 2-3 times. Social isolation and loneliness are well established risk factors among older adults for cognitive impairment, depression, and mortality. The government's strategy on loneliness sets reducing social isolation and improving well-being among older adults as a public health priority. COVID-19 restrictions could impact negatively on older adults' mental health.The Behavioural Activation in Social IsoLation (BASIL) pilot trial evaluated the feasibility and acceptability of a brief psychosocial intervention (Behavioural Activation within a Collaborative Care framework) to prevent or ameliorate depression and loneliness in older adults with multiple LTCs. The intervention was delivered remotely by BASIL Support Workers (SWs).

Approach

Qualitative study, using semi-structured telephone interviews, to explore older adults' and BASIL SWs' views of the intervention. We interviewed 16 participants who had completed the BA intervention ('completers'), one participant who did not complete the intervention ('non-completer') and 9 BSWs who delivered the intervention. An initial thematic analysis was followed by a framework analysis using the TFA (Theoretical Framework of Acceptability)* across the data-sets.Our Patient and Public Involvement (PPI) group contributed, in online meetings, to intervention development, public-facing materials and topic guides and commented on the findings.** Sekhon M et al. BMC Health Serv Res. 2017 doi: 10.1186/s12913-017-2031-8.

Findings

Older adults and BASIL SWs described a positive Affective Attitude towards the BASIL study. This was attenuated by some participants who did not feel they were experiencing low mood, but also the limitations on activity-planning (a key component of the BASIL intervention) due to the C19 context. Participation had low Opportunity Cost for BSWs and older adults. There was manageable Burden associated with both delivering and participating in the BASIL intervention. The intervention was understood, perceived to be relevant and likely to achieve its aims by all respondents (Perceived Effectiveness), particularly if tailored to those older adults already struggling with low mood. Self-efficacy for BSWs appeared to grow with experience of delivering the intervention. For older adults, experience and involvement promoted Self-efficacy. In terms of Ethicality, both BSWs and older adults discussed participating in the study for altruistic reasons. Older adults discussed valuing positive changes they had made by taking part in the intervention, and BSWs reflected on they how valued observing these changes and participants' progress.

Consequences

Use of the TFA provided valuable insights into the acceptability of study processes, how the BA intervention was experienced by older adults and BASIL SWs, and the refinements and modifications needed to be taken forward for a larger, definitive randomised controlled trial (BASIL+).

Funding acknowledgement

This work presents independent research funded by the National Institute for Health Research (NIHR) Programme Grants for Applied Research programme [RP-PG-0217-20006]. The views expressed in this work are those of the author(s) and not necessarily those o

2D.3 ALLIANCE (Quality Family Planning Services and Referrals in Community Pharmacy: Expanding Pharmacists' Scope of Practice): A protocol for a stepped-wedge trial

Presenter: Danielle Mazza

Co-authors: Prof Danielle Mazza, Assoc Prof Safeera Hussainy, Prof Deborah Bateson, Dr Samantha Chakraborty, Dr Anisa Assifi, Mx Pip Buckingham, Ms Stefanie Johnston, Prof Jane Tomnay, Assoc Prof Kevin McGeechan, Dr Jody Church, Assoc Prof Luke Grzeskowiak, Prof Lisa

Institutions: Monash University, Peter MacCallum Cancer Centre, Family Planning New South Wales, University of Sydney, Pharmaceutical Society of Australia, Centre for Excellence in Rural Sexual Health, University of Technology Sydney, Flinders University, University of Queensland, University of Edinburgh

Abstract

Problem

Women who seek emergency contraceptive (EC) or early medical abortion (EMA) are at high risk of subsequent unintended pregnancies. Community pharmacists in Australia have been dispensing over the counter EC since 2004 and about 10% also dispense EMA. Pharmacists are therefore well placed to use dispensing conversations to provide contraceptive advice to these women. However, a lack of training in effectiveness-based contraceptive advice, local resources and funding to provide such services currently impedes pharmacists from providing this care. ALLIANCE will determine whether expanding community pharmacist's scope of practice to deliver a billable consultation involving high quality, structured, patient-centred, effectiveness-based contraceptive advice and a referral to a contraceptive provider results in increased use of subsequent effective contraception amongst women seeking EC or EMA, and reduced unintended pregnancy.

Approach

ALLIANCE is a pragmatic stepped-wedge cluster randomised trial involving community pharmacists across three states in Australia. To participate, pharmacists must have a private consultation room within their practice. The intervention will be co-designed with consumers and pharmacy stakeholders via a stakeholder workshop. Then, participating pharmacists will receive implementation training as online education, educational outreach, identification of referral pathways to contraceptive providers and peer-support through an online community of practice. Participating pharmacists will recruit women as they present for EC or EMA and deliver the intervention to them (contraceptive counselling +/- referral). We will collect data from women at four and twelve months following the consultation through an online survey about the use of effective contraception and the rate of pregnancies or abortions (12 months only) after consultation. We will also interview all pharmacists and 20 women regarding their experiences of the trial and supplement these with a review of training logs and participant engagement on the community of practice. Finally, we will undertake a within-trial economic evaluation from the Australian health provider perspective, to determine the costs and benefits of the ALLIANCE intervention on the rates of hormonal and long-acting reversible contraception (LARC) usage compared to usual care.

Findings

The primary outcome is self-reported use of effective contraception (hormonal or intrauterine device) four months after EC or EMA. Secondary outcomes are rates of unintended pregnancy, abortion and continued contraceptive use at 12-months after EC or EMA. Additional trial outcomes will seek to understand "what worked for whom

in what circumstances and why", and to evaluate whether the intervention is cost-effective compared to usual care.

Consequences

If successful, our intervention will equip community pharmacists with the resources, networks, knowledge and skills to expand their scope of practice to deliver high quality, structured, patient-centred, effectiveness-based contraceptive advice. This should result in higher rates of use of effective contraception, thereby addressing a key government priority of increasing access to contraceptives.

Funding acknowledgement

This project is funded by the Australian Government, Department of Industry, Science, Energy and Resources through a Medical Research Futures Fund.

2D.4 Stroke incidence and competing risks for people with heart failure and atrial fibrillation in primary care: cohort study

Presenter: Nicholas Jones

Co-authors: Nicholas R Jones, Margaret Smith, Sarah Lay-Flurrie, Andrea K Roalfe, Yaling Yang, FD Richard Hobbs and Clare J Taylor

Institutions: University of Oxford Nuffield Department of Primary Care Health Sciences

Abstract

Problem

Atrial fibrillation (AF) is associated with a five-fold increased risk of stroke, but the risk of stroke in people with heart failure (HF), with or without AF, is less well defined. This information is important to inform decisions around anticoagulation and stroke prevention.

Approach

Primary care cohort study of people aged ≥45 years using Clinical Practice Research Datalink data from England between January 2000 and December 2018, linked to inpatient Hospital Episode Statistics. Cox proportional hazards and Fine and Gray competing risks models were used to examine the association between HF, AF or both and incidence of first stroke, adjusting for other established cardiovascular risk factors.

Findings

We included 2,381,941 participants (mean age 57 years), of whom 80,243 had HF only, 127,588 had AF only and 61,448 had both AF and HF. During follow-up (median 6.62 years) 93,665 patients (3.93%) had a first stroke and 314,042 (13.18%) died. Among people with HF, with or without AF, 12,386 (8.7%) suffered a first stroke and 82,806 (58.4%) died. Stroke was the primary cause of death in 9.55% (n=3,777) of people with AF, 5.82% of people with AF and HF (n=2,470) and 3.94% (n=1,592) of those with HF alone.In an unadjusted Cox model, stroke risk was highest among people with HF and AF (HR 8.93, 95%CI: 8.71-9.16), but also elevated for people with AF only (HR 7.12, 95%CI: 7.00-7.25), or HF only (HR 4.77, 95%CI: 4.64-4.90) compared to the general population. However, in the fully adjusted Cox model, stroke risk was highest among people with AF alone (HR 2.38, 95%CI: 2.33- 2.43), followed by HF and AF (HR 2.16, 95%CI: 2.10-2.22) and HF alone (HR 1.40, 95%CI: 1.36-1.45). Accounting for competing risk using the Fine and Gray model did not change the stroke risk for people with AF alone, but led to significant attenuation in risk for people with HF and AF (HR 1.48, 95%CI: 1.44-1.53), while people with HF alone were at little increased risk compared to the general population (HR 1.04, 95%CI: 1.01-1.08). For people with HF alone or HF with AF, the greatest relative increase in risk was among those aged under 65 years who were not treated with

anticoagulation, compared to the general population of the same age.

Consequences

People with HF are at an increased risk of stroke, but often have a poor prognosis, which means stroke incidence is lower than anticipated. Clinicians may need to take account an individual patient's prognosis as well as their stroke and bleeding risk when considering the potential benefits of anticoagulation. Future research could refine stroke risk scores to incorporate competing risks when considering anticoagulation in people with AF and HF.

Funding acknowledgement

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2D.5 Can we measure frailty in trials for dementia and mild cognitive impairment?

Presenter: Heather Wightman

Co-authors: Heather Wightman, Terry Quinn, Jim Lewsey, Frances Mair, David McAllister, Peter Hanlon

Institutions: University of Glasgow

Abstract

Problem

Frailty, an age-related decline in physiological reserve, is increasing. There is growing interest in the relationship between physical frailty and cognitive impairment. Despite this, frailty is rarely measured or reported in randomised controlled trials (RCTs) for dementia. Identifying frailty in RCTs is important for assessment of trial representativeness and understanding clinical implications for treatment. This study aims to assess the prevalence of frailty in three RCTs for mild cognitive impairment (MCI) or dementia.

Approach

We analysed individual-level participant data from three RCTs available from the Yale Open Data Access repository. Two trials included participants with MCI, living in the community. One trial included participants with severe Alzheimer's dementia. For each trial, we constructed a frailty index, based on standard procedures based on Rockwood's 'cumulative deficit' model of frailty. For each trial, we identified health related deficits (comorbidities, symptoms, functional limitations and laboratory deficits) which were combined as a non-weighted sum (ranging 0 to 1, higher values indicating a greater degree of frailty). Deficits were selected from baseline data in each of the three trials. For each trial, we calculated the mean frailty index. We also calculated the number of participants in each trial identified as living with frailty (based on a frailty index value of >0.24).

Findings

The trials for MCI recruited 1062 participants (553 female, mean age 70 years) and 994 participants (606 female, mean age 71 years), respectively. The trial for severe Alzheimer's included 415 participants (332 female, mean age 82 years). Data were sufficiently complete to calculate the frailty index for 1054 (99%), 982 (99%) and 408 (98%) participants, respectively. In the MCI trials, the mean frailty index was 0.142 and 0.133, respectively, with a frailty prevalence of 7.4% and 5.3%. In the Alzheimer's disease trial the mean frailty index was 0.269 and 60.5% of participants were classified as living with frailty. The 99th centile of the frailty index was 0.29 and 0.32 in the MCI trials and 0.47 in the Alzheimer's disease trial.

Consequences

Our findings show that it is feasible to measure and report frailty in RCTs for cognitive impairment/dementia, using standard baseline measurements. We found frailty to be present in all three trials. As would be expected, frailty was more common in the population experiencing severe Alzheimer's dementia than in MCI. For all trials, however, the upper limit of frailty was lower than is found in many general-population studies, suggesting trial selection processes may be a barrier to inclusion of people with severe frailty. These findings offer further opportunities to explore the implications for frailty in people with cognitive impairment, such as the relationship between frailty and clinical outcomes within a trial setting, and assessment of the representativeness of trials for cognitive impairment.

Funding acknowledgement

David McAllister is funded via an Intermediate Clinical Fellowship and Beit Fellowship from the Wellcome Trust, who also supported other costs related to this project such as data access costs and database licenses (Grant reference: 201492/Z/16/Z). Peter

2D.6 Integrating care for hypertension, diabetes and HIV in Africa: toolkit development and content

Presenter: Geoff McCombe

Co-authors: Jayleigh Lim1, Sara Murtagh1, Jeffrey V. Lazarus2,3, Marie Claire Van Hout4, Max Bachmann5, Shabbar Jaffar6, Anupam Garrib6, Kaushik Ramaiya7, Nelson K. Sewankambo8, Sayoki Mfinanga9, Walter Cullen1

Institutions: 1,University College Dublin, 2Barcelona Institute for Global Health (ISGlobal),3Hospital Clínic, University of Barcelona, 4Liverpool John Moores University, 5University of East Anglia, 6Liverpool School of Tropical Medicine, 7Shree Hindu Mandal Hospital, Dar es Salaam, Tanzania, 8Makerere University, Uganda, 9National Institute for Medical Research, Tanzania

Abstract

Problem

Although HIV continues to have a high prevalence among adults in sub-Saharan Africa (SSA), the burden of noncommunicable diseases (NCD) such as diabetes and hypertension is increasing rapidly. There is an urgent need to expand the capacity of healthcare systems in SSA to provide NCD services and scale up existing chronic care management pathways. The INTE-AFRICA consortium comprises a group of researchers and policymakers from Tanzania, Uganda, and Europe who aim to scale up provision for diabetes and hypertension in SSA by testing the efficacy of integrating diabetes and hypertension services alone, or in combination with HIV-infection services. This paper describes the development and content of a toolkit to identify best practices and produce evidence to inform researchers, and public and private policy makers on best practice to integrate diabetes, hypertension and HIV care in SSA.

Approach

A scoping review was conducted to map existing policy and evidence based literature on the feasibility of integrating NCD care with HIV in SSA. This was followed by carrying out an international, multi stakeholder e-Delphi consensus study to identify key components, outcomes, and best practice in integrated service provision for the prevention, identification and treatment of HIV, hypertension and diabetes. The findings of these two studies complemented by a search of key online resources informed the development and content of the toolkit which was part of Work Package 3 of the INTE-AFRICA project.

Findings

Integrated HIV/NCD care in the SSA region is challenging but potentially feasible. However, there remain various country specific, contextual, human resource, logistical and infrastructural barriers that need to be considered in order to best achieve efficient and effective integrated care delivery. The toolkit highlights that there is no single approach likely to work in all settings, and hence countries should devise an integrated model of care that is contextually appropriate, so as to maximize existing resources and leverage upon the strengths of the local health system while preventing prevailing cracks from impacting on hard-earned HIV gains and quality of clinical care.

Consequences

Further research is required to generate more robust evidence on the benefits, challenges, and cost-effectiveness of integration of HIV and NCD services in SSA, particularly in those countries where NCD services are still developing. Conducting high quality trials and implementing their findings will enable the optimization of existing resources and enhance the outcomes of NCD detection, treatment and care for all patients in a manner that is both cost-effective, and which does not weaken the well-functioning HIV efforts in the SSA region.

Funding acknowledgement

The INTE-AFRICA project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825698

2D.7 How has the Covid-19 pandemic affected people with Rheumatoid Arthritis or Musculoskeletal pain?

Presenter: Karen Wood

Co-authors: Karen Wood, Susan Browne, Barbara Nicholl, Frances Mair, Yvonne Cunningham, Bhautesh Jani, Stefan Siebert and Sara Macdonald

Institutions: Institute of Health and Wellbeing - University of Glasgow

Abstract

Problem

The Covid-19 pandemic and implementation of measures to limit the spread of the virus significantly affected individuals and their healthcare. COVID-19 prompted the immediate transformation of healthcare systems. Many routine services were disbanded and moved to remote consultations. Public health messaging during lockdown encouraged the public to stay at home to protect the NHS. A wider study investigating the healthcare experience of people living with multimorbidity (presence of ≥2 long term conditions) including Rheumatoid Arthritis (RA) and persistent musculoskeletal (MSK) pain, was suspended because of the pandemic. When restarted, the study was expanded to investigate the experiences of people affected by RA or MSK pain during the pandemic.

Approach

Semi-structured interviews were conducted with 47 people living with RA or persistent MSK pain, with and without multimorbidity. Participants were recruited from outpatient rheumatology clinics, pain clinics and primary care. Data were analysed thematically, and findings mapped to the 'candidacy' theoretical framework.

Findings

Participants were mostly female (31 female, 16 male) and aged between 24 and 92 years. Our analysis identified themes related to: (1) Healthcare system impacts (remote consultations, delays and cancellations, difficulties accessing care, Covid information) and (2) Impacts on individuals (social and emotional wellbeing, pain and mobility, mental health, care seeking behaviour, employment/finance, understandings of Covid). Themes were mapped to the processes of candidacy. It was clear that the move towards remote consultations may have unintended consequences and should not be 'one-size fits all'.

Consequences

Our findings highlight experiences of people with RA/persistent MSK pain and multimorbidity during the Covid-19 pandemic. The health seeking behaviour of some patients has changed, and it is unclear if this will continue in the longer term. These findings support the need for discussion around the longer-term impact of the pandemic on individuals and changes within the healthcare system.

Funding acknowledgement

This study was funded by Versus Arthritis. Grant number: 21970

2D.8 Optimising referrals from primary care to renal clinics. Findings from a Welsh population study

Presenter: Bhautesh Jani

Co-authors: Bhautesh Jani, Frances Mair, Patrick Mark, Jennifer Lees

Institutions: University of Glasgow

Abstract

Problem

Recently in the UK, the kidney failure risk equation (KFRE) to predict the risk of kidney failure has been incorporated into clinical guidelines. Referral from primary care to a specialist renal clinic is recommended if eGFR falls to <30ml/min/1.73m2 and/or if the five-year KFRE is greater than 5%. A new race-free estimated glomerular filtration rate (eGFR) was developed in 2021. We investigate the impact of using the race-free eGFR equation and KFRE on chronic kidney disease (CKD) diagnosis in primary care and potential referrals to the renal clinic.

Approach

Primary care records for 79% of the population of Wales (UK) are held in the electronic health records repository Secure Anonymised Information Linkage Databank (SAIL). We studied serum creatinine values and urine albumin-creatinine ratios (uACRs) from 1st January 2013 to 31st December 2020. We calculated eGFR values using three equations: MDRD, CKD-EPI 2009 and (race-free) CKD-EPI 2021. Using the different equations, we compared the numbers of patients with incident eGFR <60ml/min/1.73m2 and incident eGFR <30ml/min/1.73m2. For each year from 2013 to 2020, we identified the patients with prevalent eGFR 30-60ml/min/1.73m2, those with annual uACR testing and those who met

referral criteria by A) eGFR decline and B) KFRE without eGFR decline.

Findings

There were 121,471 patients with prevalent CKD between 2013 and 2020. eGFR values were lowest using the MDRD equation (median 47.1ml/mi/1.73m2, IQI 39.7-51.9) and highest with the CKD-EPI 2021 equation (median 50.0ml/min/1.73m2, IQI 41.6-55.3). Changing between these two equations would have led to a 17.6% reduction in incident eGFR<60ml/min/1.73m2 and a 7.5% reduction in incident eGFR<30 between 2013 and 2020. The rate of annual uACR testing fell from 46.3% in 2013 to 25.3% in 2019. eGFR and uACR testing were reduced further in 2020 during the Covid-19 pandemic. Patients without diabetes and older patients were the least likely to have had uACR testing at any time. In 2019 (the last year before the Covid-19 pandemic), 787/61,721 (1.3%) patients with CKD stage 3 met referral criteria by eGFR decline and and additional 587 (1.0%) by KFRE without eGFR decline.

Consequences

KFRE can be used to identify a significant number of patients at heightened risk of kidney failure. Annual uACR testing rates are low, especially in those without diabetes and in older adults. eGFR and uACR testing were markedly reduced during the Covid-19 pandemic in 2020 as most routine disease monitoring stopped. Expanding uACR testing in primary care and using KFRE may improve the identification of individuals at risk of progressive kidney disease, but this is challenging during the Covid-19 pandemic. Using the race-free eGFR equation will reduce diagnoses of incident eGFR<60 and therefore the numbers of patients requiring monitoring of blood and urine tests and blood pressure.

Funding acknowledgement

Medical Research Council Clinical Research Training Fellowship to MS

2D.9 Liver disease management as routine in primary care? A qualitative interview study to guide implementation

Presenter: Helen Jarvis

Co-authors: Tom Sanders, Barbara Hanratty

Institutions: Newcastle University, Northumbria University

Abstract

Problem

Morbidity and mortality from liver disease is rising in the UK. Most cases of liver disease are caused by alcohol and/or NAFLD and are therefore preventable and treatable if caught early and lifestyle interventions enacted. Chronic liver disease has been omitted from long-term condition management in UK primary care and is not the subject of routine assessments or financial incentives. Several research studies have shown pathways to find chronic liver disease in the community lead to an increase in detection of significant disease. Despite this, implementation of these pathways has been partial and there has been little study of how they may fit within routine primary care work. This study explored primary care health care professional (HCP) experiences and understanding of chronic liver disease, and how this might fit into long-term condition management structures.

Approach

A qualitative cross-sectional study design used semi-structured interviews with HCP working in primary care in the North of England. Sampling was purposive to allow perspectives from HCPs working in demographically different practices with varying levels of experience. Interviews were conducted from October 2020-May 2021. To provide an overall focus, yet still allowing for flexibility, a semi-structured approach informed by a theory of implementation (normalisation

process theory (NPT)) was used. Data collection and analysis were concurrent. Interview data were analysed using thematic analysis.

Findings

Twenty interviews were conducted. Four themes encapsulated the interviewees' views and perceptions: structural barriers to operationalising liver disease care, liver disease as part of multimorbidity, the value in managing liver disease and facilitators of change in liver disease care. The results were analysed with reference to NPT to gain insight into the work that organisations and individuals may need to do to develop a framework for managing liver disease effectively in primary care. To make sense of, and be able to build and sustain a new way of working in the area of liver disease, participants identified key areas for action: integrated and incentivised frameworks and protocols to drive communal understanding as well as organise and sustain practice, incorporating common liver diseases into multimorbidity care to reduce complexity and allow individual sense making as well as manage workload, defining the GP role within a predominantly lifestyle focused treatment pathway for GPs to better understand the value in change, and education/local champions to help initiate and legitimise individual and organisational participation in change.

Consequences

The results of this study will be used directly to guide the development of a chronic liver disease framework being implemented into routine long-term condition management in the North East of England. It is anticipated that this embedded pathway will benefit from the consideration of successful implementation at the planning and development stage and that rapid wider national implementation will follow.

Funding acknowledgement

Helen Jarvis is funded by an NIHR clinical DRF no : NIHR300716

2E.1 CREATIVE PIECE: The Power of Human Connection in Healing.

Presenter: Sivakami Sibi

Institutions: Queen Mary University London

Abstract

https://sapc.ac.uk/file/ce1-painting-sivakami-sibi-ce02-image-resized-jpg. View painting My painting represents the power of human connection through the arts and the importance of flourishing in both medical education and practice. As a medical student I have begun to explore how I can integrate creative art-forms into my medical journey as I have learnt that working creativity can have a profound impact on patient well-being which is emphasised here. From a clinical perspective, the left hand alludes to the physical body through the visual imagery of tendons and arteries but can also be seen as symbolic of what is beneath our skin and the part of us deep within. As it reaches out to the right hand that metaphorically represents flourishing through the imagery of butterflies and flowers, the painting emphasises the need for spreading compassion to grow and develop as individuals which is highlighted further by the rose, a symbol of love. The two hands can be interpreted as different people reaching outwards to develop themselves through the support of each other or as both hands representing one person who is trying to connect the two sides of themselves (physical and mental.) An alternative interpretation could be that the left hand represents a patient reaching out to their doctor which depicts how patients reach out for empathy and kindness to connect with their doctors during consultations. This highlights the importance of holistic care in medicine as doctors can often focus on the physical symptoms of a patient whilst paying

less attention to their mental wellbeing. Therefore, the hands symbolise the power of human connections, not only in healing and nurturing in our daily lives but also in clinical practice. Ultimately, this painting is a visual reminder that I should be compassionate towards myself. In times of difficulty, I should reach out for help from others and that can allow me to develop as an individual. As a medical student, it reminds me of the need for compassion with patients, to see them not only by their disease but also from a human perspective and always offer my compassion and empathy. Especially in the recent difficult times of the pandemic, considering the human dimension in medicine is vital in caring for patient's well-being. It is essential for healthcare professionals to have compassion in their consultations to gain a deeper understanding of the lived experiences of a patient as I believe that people become stronger when they share their stories and especially when they feel heard. I hope that any individual but particularly doctors and medical students, that see my painting will be able to feel the warmth I felt when painting it and see the need for spreading love and compassion in healthcare or even just in our daily lives.

2E.2 CREATIVE PIECE: From coMforT to Hard Evidence: a collaborative approach to using creative mediums in developing and disseminating research

Presenter: Noreen Hopewell-Kelly

Co-authors: Dr Natalia Lewis; Ingrid Jones; Alison Prince; Shass Blake

Institutions: University of the West of England and University of Bristol

Abstract

The research Nationally, it is estimated that 2.3 million adults aged 16 to 74 years experienced domestic abuse in the year ending March 2020. The coMforT study was funded by NIHR Bristol Biomedical Research Centre, developed and piloted tested a trauma-specific mindfulness course for women with experience of domestic abuse and post-traumatic stress. A Public and Patient Involvement (PPI) group of women with lived experience of domestic abuse was embedded into the work of the coMforT study and was crucial in the way that coMforT was shaped throughout its development. Unique to the coMforT PPI group was the way in which the contributor's roles developed enabling and supporting them to engage in different roles, activities and outputs but within a context that was profoundly sensitive and emotive to each of them. At the completion of coMorT, two members of the study PPI group supported by the BRC PPI coordinator, and Associate director of the community theatre ACTA wrote a play 'Hard Evidence'. The play was based on the experiences of the coMforT PPI group. It was developed over zoom by two of PPI members in collaboration with ACTA community theatre. The purpose of this work was to develop an innovative way of disseminating the message that the most sensitive of experiences can be used in the most productive of ways (in the context of PPI). A

new theatre production was then performed over two nights at the ACTA theatre, Bristol, by the same two public contributors who wrote the piece. The creative review Our creative review will give an overview of the way in which we developed a collaborative, creative medium to disseminate and develop research outputs related to the coMforT study. Our objective was to reach diverse audiences outside of academic contexts and give back to the community groups that were a part of the research itself. Our review will include an edited version of the film of Hard Evidence and be presented by the PPI lead and Associate director of ACTA. A preview of the film with behind the scenes recording can be seen at https://youtu.be/gGge4dG6x-s.

2E.3 CREATIVE PIECE: Resilience/Burnout and Recovery/Renewal: 2 poems and reflection

Presenter: Sara McKelvie

Institution: University of Southampton

Abstract

These two poems were written at the bookends of a challenging period in my life, where changes to my home and work resulted in burnout and time for reflection. I explore how I used poetry to understand my experiences during the recovery process by considering how creativity supported "meaning-making" (Younie 2011). During the challenging period, poetry allowed me to make sense of the events and gain some perspective. In both poems, using a narrative voice allowed me to separate the experiences and feelings and gain some analytic distance, using tools from my work as a qualitative researcher. Poetry aided my recovery by providing different ways to see the lived experiences. In the first poem, it was helpful to without re-experiencing the associated strong emotions of pain, grief and anger that I felt at the time. I could see the absurdity of holding onto the mantra of resilience, when life was hard and changed by external factors outside of my control. The structure of the poem deliberately uses repetition to underscore the pressure that is felt by doctors to be resilient when working under pressure. The responses escalate in severity to demonstrate the effect of chronic work stressors, which ultimately have an impact on the home life and mental wellbeing. The second poem was inspired by the knitting that I had started as a creative outlet during my recovery. I found the repetitive nature of starting and finishing small projects with low stakes outcomes both comforting and joyful. The poem has a deliberate rhythm to emphasise that we all need to start again sometimes and in working through the process, we are learning. Recovery for me felt like an active process, where I learnt to cope with small setbacks, then larger ones. I reduced the fear and pressure to perform associated with perfectionism and it showed me that I could get up, recovery and start again. Sharing these experiences as poetry with a wider audience feels risky and there are dangers of exposing one's feelings for critical review. However I feel there is more to be gained by sharing the experience to connect with others. I hope that poem one might inspire recognition and as a prompt to have more honest conversations about the effects of chronic stressors, acting as an emotional barometer. Poem two instead aims to inspire hope in recovery after challenging times. References YOUNIE, L. 2011. A reflexive journey through arts-based inquiry in medical education. Doctor of Education, University of Bristol.
Resilience/Burnout I have resilience…
…Even though the servers crashed again I have resilience…
…Even though someone's gone and nicked my pen I have resilience…

…Even though trolleys crowd the corridor I have resilience…
…Even though my pager's bleeped some more I have resilience…
…Even though the systems breaking down I have resilience…
…Even though there are no beds around I have resilience…
…Even though I haven't peed I have resilience… …
I hope I have no other urgent need I have resilience…
…Even though my divorce is going through I have resilience…
…Even though my son is nearly two I have resilience…
…Even though my house is for sale too I have resilience…
…Even though my period is overdue I have resilience…
…Even though I just can't care I have resilience…
…Even though it's all too much to bear
Recovery/Renewal Knit one, purl one, slip one, turn one Follow the patterns instructions Sew up the selvedges Darn in the ends Repeat and start again Knit one, purl one, slip one, turn one A dropped stitch seen in the design Unpick the coloured threads Unravel the yarn Repeat and start again Knit one, purl one, slip one, turn one Mistakes can be easily made But pick up the stitches Salvage and save Repeat and start again

2E.4 Assessing the impact of COVID-19 on referrals to musculoskeletal services from primary care and subsequent incidence of inflammatory arthropathies: an observational study of UK national primary care electronic health records

Presenter: Claire Burton

Co-authors: Kayleigh Mason, James Bailey, Ram Bajpai, Martin Frisher, Kelvin Jordan, Christian Mallen, Victoria Welsh

Institutions: School of Medicine, Keele University, School of Pharmacy and Bioengineering. Keele University

Abstract

Problem

The early diagnosis and treatment of rheumatoid arthritis (RA) improves long-term outcomes and quality of life. NICE guidance states that adults with suspected persistent synovitis, should be referred to rheumatology services within 3 working days of presenting in primary care. The National Early Inflammatory Arthritis audit observes the percentage of patients referred to rheumatology within 3 days and those seen by a rheumatologist within 3 weeks. The COVID-19 pandemic meant that the way primary care was delivered changed abruptly. Evidence exists to show cancer referrals and diagnostic delay due to the pandemic have impacted patient outcomes. We have shown that consultations for musculoskeletal problems reduced early in the pandemic and proportionally more patients were prescribed stronger analgesia. We now aim to describe the impact the pandemic has had on time to referral and diagnosis of inflammatory arthropathies (IA), including RA and juvenile inflammatory arthritis (JIA), in patients

presenting in primary care with musculoskeletal problems.

Approach

National primary care data from CPRD Aurum was used to describe consultation and referral patterns for patients with musculoskeletal conditions for pre- and peri-pandemic periods. Code lists for musculoskeletal conditions were derived and prevalent and incident consultations determined. For those presenting with musculoskeletal conditions, referrals were matched to consultations. Trends in referrals to musculoskeletal services (including rheumatology and orthopedics) and further incident diagnoses of IA were described using Joinpoint Regression and comparisons made between key time periods (pre/early pandemic, and post-September 2020).

Findings

Our findings to date suggest that incidence of diagnosed IA was stable up to July 2020. The incidence of RA and JIA reduced by -5.17% and -8.26% per month respectively between October 2019 and July 2020. Seasonal drops in incidence had been noted in previous years. It is likely the same winter drop occurred, and was then sustained as the pandemic ensued. Referral rates to rheumatology, orthopedics and musculoskeletal services, decreased between February 2020 and May 2020 by -18.34% per month in patients presenting with a musculoskeletal condition. After May 2020, referrals did increase significantly (24.42% per month) to July 2020. The period of lower rates of referral coincides with a previously observed increase in the prescription of stronger analgesia.

Consequences

By time of presentation, we will have completed analysis for the next 16 months (August 2020 to October 2021) and compared musculoskeletal consultation, referral and IA incidence rates between key time periods over the pandemic. We will describe any changes in the mode of consultation and discuss how this may impact time between the first musculoskeletal presentation in primary care to referral, and referral to diagnosis of an inflammatory arthropathy. These findings are likely to highlight the importance of being alert to potential new RA diagnoses and referring patients with appropriate urgency.

Funding acknowledgement

Musculoskeletal pain during the COVID-19 pandemic: an observational study of UK national primary care electronic health records is funded by FOREUM (Foundation for Research in Rheumatology). CB and VW are funded by a National Institute for Health Research

2E.5 A realist synthesis of non-pharmacological interventions for antipsychotic-induced weight gain in people with severe mental illness (RESOLVE): incorporating experts-by-experience stakeholders

Presenter: Ian Maidment

Co-authors: Geoff Wong, Claire Duddy, Hafsah Habib, Katherine Allen, Rachel Upthegrove, Sheri Odula, Amy Ahern, Alex Kenny, Daniel Robotham, Ian Maidment

Institutions: Aston University, University of Oxford, Birmingham and Solihull Mental Health NHS Foundation Trust, University of Birmingham, University of Cambridge, University of East Anglia, McPin Foundation

Abstract

Problem

Antipsychotics are widely used in the treatment of schizophrenia and other severe mental illnesses (SMI). These medications can produce a range of side-effects, one of which is weight gain. Up to 80% of people with

schizophrenia or bipolar disorder are overweight or obese. Many different non-pharmacological interventions have been tried to limit antipsychotic-induced weight gain, however there is not a clear picture of what works, for whom and in what circumstances. Thus, a realist approach is ideal for exploring how and why a complex social programme involving human actions and decisions, such as non-pharmacological interventions to manage antipsychotic-induced weight gain, may or may not work, and thus inform the theoretical development of an intervention and practice-based guidance.

Approach

This project will undertake a realist evaluation incorporating secondary and primary data collection inclusive of grey literature and stakeholder engagement from experts-by-experience. An initial programme theory will be developed, setting out how and why outcomes occur within an intervention and is based on the collective experience of the project team with PPI input from a Lived Experience Group (LEG) and a practitioner group. The programme theories articulated through the realist review process will be further refined and enhanced through engagement with experts-by-experience to identify the key issues regarding the success of non-pharmacological interventions. The realist review will be followed with realist interviews which will be conducted to gather additional data to support, refute or refine the programme theory developed from the review. The lived experience group (LEG) will inform and confirm findings from the realist evaluation and will enable a better understanding of non-pharmacological interventions in weight loss for people with SMI. The practitioner group will provide detail and clarity on the challenges practitioners incur in managing weight gain in people with SMI.

Findings

The involvement of the stakeholder group will allow the findings from the realist evaluation to be shaped according to their expertise and experiences. An overview of this process involving the LEG and practitioner groups will be produced. The key findings of the evaluation alongside the outcomes identified by the stakeholder group will be presented. The initial programme theory which will develop because of this collaborative process will incorporate the different contexts that trigger key mechanisms to produce these outcomes and improve quality of life for people living with severe mental illness.

Consequences

This realist evaluation will provide meaningful findings to inform the development of guidance on managing antipsychotic-induced weight gain and a framework for intervention design for people with severe mental illness. Furthermore, the findings of this evaluation will be used to inform a future grant application to develop a non-pharmacological intervention that will help manage weight in people living with severe mental illness.

Funding acknowledgement

RESOLVE is funded by the National Institute for Health Research (NIHR). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

2E.6 Mental health and alcohol use among patients attending a post-COVID-19 follow-up clinic: A cohort study.

Presenter: John Broughan

Co-authors: John Broughan, Geoff McCombe, Brendan O'Kelly, Gordana Avramovic, Ronan Fawsitt, Shannon Glaspy, Mary Higgins, Tina McHugh, James Woo, Louise Vidal, John S Lambert, Walter Cullen

Institutions: 1 School of Medicine, University College Dublin, Belfield, Dublin 4, Ireland (DO4 V1W8)., 2 Mater Misericordiae University Hospital, Eccles St., Dublin 7, Ireland (D07 AX57). , 3 Castle Gardens Surgery, Kilkenny, Ireland (R95 AY8R). , 4 Ireland East Hospital Group, One Kilmainham Square, Dublin 8, Ireland (D08 ET1W)., 5 National Maternity Hospital, Holles St., Dublin 2, Ireland (D02 YH21).

Abstract

Problem

Ongoing mental health problems following COVID-19 infection warrant greater examination. This study aimed to investigate psychiatric symptoms and problematic alcohol use among Long COVID patients.

Approach

The study was conducted at the Mater Misericordiae University Hospital's (MMUH) post-COVID-19 follow-up clinic in Dublin, Ireland. A prospective cohort study design was used encompassing assessment of patients' outcomes at 2-4 months following an initial clinic visit (Time 1), and 7–14-month follow-up (Time 2). Outcomes regarding participants' demographics, acute COVID-19 healthcare use, mental health, and alcohol use were examined. The study was approved by the MMUH Research Ethics Committee (Ref # 1/378/2141).

Findings

The baseline sample's (n = 153) median age = 43.5yrs (females n = 105 (68.6%)). Sixty-seven of 153 patients (43.8%) were admitted to hospital with COVID-19, 9/67 (13.4%) were admitted to ICU, and 17/67 (25.4%) were readmitted to hospital following an initial COVID-19 stay. Sixteen of 67 (23.9%) visited a GP within seven days of hospital discharge, and 26/67 (38.8%) did so within 30 days. Seventeen of 153 participants (11.1%) had a pre-existing affective disorder. The prevalence of clinical range depression, anxiety, and PTSD scores at Time 1 and Time 2 (n = 93) ranged from 12.9% (Time 1 anxiety) to 22.6% (Time 1 PTSD). No statistically significant differences were observed between Time 1 and Time 2 depression, anxiety, and PTSD scores. Problematic alcohol use was common at Time 1 (45.5%) and significantly more so at Time 2 (71.8%). Clinical range depression, anxiety, and PTSD scores were significantly more frequent among acute COVID-19 hospital admission and GP attendance (30 days) participants, as well as among participants with lengthy ICU stays, and those with a previous affective disorder diagnosis.

Consequences

Ongoing psychiatric symptoms and problematic alcohol use in Long COVID populations are a concern and these issues may be more common among individuals with severe acute COVID-19 infection and /or pre-existing mental illness.

Funding acknowledgement

This study was funded by Ireland's Health Research Board (COV19-2020-123). The study contributes to a wider body of work being produced to attenuate the adverse effects of the COVID-19 pandemic on population health in Ireland (The North-Dublin COVID-19 Co…)

2F.1 Workshop

How do we meaningfully involve people in primary care research from marginalised communities?

Presenter: Rebecca Morris, Kelly Howells, Kay Gallacher, Jo Brown, Mat Amp

Co-authors:

Institutions: Rebecca Morris, University of Manchester Kelly Howells, University of Manchester Kay Gallacher, Public Contributor Jo Brown, Groundswell Mat Amp, Groundswell

Abstract

Workshop aims Involving patients and the public in primary care research is a key component throughout the research cycle yet there remains continuing issues about how to meaningfully involve people from marginalised communities. This workshop aims to explore different approaches to involvement and participatory research with people from marginalised communities. Objectives 1. To define what is meant by 'marginalised' and limits of current public involvement approaches 2. To provide a safe space for active discussion about the opportunities as well as challenges of involving patients or members of the public from marginalised communities 3. To share experiences and learning of different types of patient and public involvement and participatory research for working with people from a range of communities Format An active workshop where participants will be encouraged to share their experiences and network:

1. A short introduction defining what is meant by 'involvement', 'marginalisation' and 'participatory approaches'. (10 minutes)

2. A brief participatory ice breaker 'speed dating' exercise to get attendees to know other people in the room and their experience (10 minutes)

3. Small group discussions where attendees will brainstorm the opportunities and challenges are working with different communities (20 minutes)

4. Full group discussion to identify opportunities for developing involvement and participatory opportunities with marginalised communities and the implications for individuals, organisations and wider policy. (20 minutes)

This workshop was jointly facilitated by members of the public, peer researchers, Groundswell (an organisation that works with people with experience of homelessness), and academic, and members of the PPI and participatory approaches to academic primary care SIG. Content Working with communities and individuals who are traditionally identified as marginalised is an important component of developing systems and research that addresses topics of need from people within these communities. COVID-19 has highlighted and exacerbated inequities that existed within health care and research and provided opportunities to rethink existing practices about involving in primary care research. For example, using online meetings with auto-captioning may allow people who have hearing loss to be involved in discussions or conversely may have excluded people who do not have access to technology. We will facilitate an interactive discussion exploring the opportunities and challenges across different types of involvement and participatory approaches with opportunity to share experiences, uncertainties, facilitators and barriers so attendees will develop a range of tools and knowledge to support them to involve people from marginalised groups. Intended audience Members of the public, researchers, academics, health care professionals, anyone with an interest in involving people in primary care research

3A.1 Specific learning difficulties (SpLDs) differently affect performance on written compared to clinical general practice licensing tests: cohort study

Presenter: Vanessa Botan

Co-authors: Graham Law, Nicki Williams, Chris Elfes, Kim Emerson, Fiona Kameen, Susan Bodgener, MeiLing Denney, Rich Withnall, Lindsey Pope, A. Niroshan Siriwardena

Institutions: University of Lincoln, Royal College of General Practitioners

Abstract

Problem

Specific Learning Difficulties (SpLDs) affect the way information is learned and processed and can have a significant impact on learning and education. Substantial numbers of students who have a disclosed SpLD enrol in medical and GP training, but failure to accommodate their needs can disadvantage them in academic, clinical, and examination settings. Examination bodies have a legal obligation to provide equality of opportunity and eliminate unlawful discrimination. The aim of this study was to evaluate and compare performance of SpLD candidates and candidates with no declared disability on all three licensing examinations, the Applied Knowledge Test (AKT), Clinical Skills Assessment (CSA) or Recorded Consultation Assessment (RCA), whilst adjusting for demographic factors including ethnicity, place of primary medical qualification, and gender as well as for prior attainment on the Multi-Specialty Recruitment Assessment (MSRA) test for selection to GP training.

Approach

We used a longitudinal design linking selection, licensing and demographic data from UK doctors entering GP specialty training in 2016. MSRA records from 2016 and 2017 were linked with their AKT (Applied Knowledge Test), CSA (Clinical Skills Assessment), and RCA (Recorded Consultation Assessment) outcomes up to 2021. Descriptive statistics included percentages of candidates taking and passing each assessment and average scores obtained on the licensing tests subdomains. Multivariable logistic regression models adjusting for gender, ethnicity, country of graduation, and MSRA scores established differences in the likelihood of passing each of the licensing tests between those with declared SpLDs and those without.

Findings

Out of a total of 2070 of candidates who undertook the AKT, CSA, and/or RCA, 214 (10.34%) had a declared SpLD. Overall, candidates who declared a SpLD had lower pass rates on all assessments, but these were statistically significant only for the CSA (no SpLD: 92.34% versus SpLD: 79.88%, $z=4.59$, $p<0.001$). Candidates declaring an SpLD were significantly less likely to pass the CSA (OR 0.43, 95% CI 0.26, 0.71, $p=0.001$), but not the AKT (OR 0.96, 95% CI 0.44, 2.09, $p=0.913$) or RCA (OR 0.81, 95% CI 0.35, 1.85, $p=0.615$). When looking at licensing tests sub-domains, SpLD candidates performed significantly worse on the CSA Interpersonal Skills (B=-0.70, 95% CI -1.2, -0.19, $p=0.007$) and the RCA Clinical Management Skills (B=-1.68, 95% CI -3.24, -0.13, $p=0.034$). This study confirmed that having a declared SpLD was predictive of poorer performance on the CSA, but not the AKT.

Consequences

Candidates with declared SpLDs may encounter difficulties in both applied knowledge and clinical skills licensing tests. Reasonable adjustments in place for them to overcome possible difficulties encountered in the applied knowledge test are sufficient, but further adjustments, tailored to their needs, are required for clinical skills tests (CSA and RCA).

Funding acknowledgement

This abstract presents independent research commissioned by Health Education England. The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of Health Education England.

3A.2 Suicide-related attitudes of pharmacy teams in primary care in England in response to a video intervention

Presenter: Hayley Gorton

Co-authors: Hayley Berry, Claire O'Reilly, David Gardner, Andrea Murphy

Institutions: School of Applied Sciences, University of Huddersfield, Huddersfield, UK, Centre for Pharmacy Postgraduate Education (CPPE), University of Manchester, Manchester, UK, Sydney Pharmacy School, The University of Sydney, Sydney, Australia, Department of Psychiatry, Dalhousie University, Halifax, Canada, College of Pharmacy, Dalhousie University, Halifax, Canada

Abstract

Problem

Two-thirds of people who die by suicide are not seen in specialist mental health services. These people must either be known to primary care, or not engaged with health services at all. Suicide prevention strategies have been established to better develop roles and responsibilities for primary and specialist care providers in suicide risk management. Pharmacists and their teams are well placed to contribute to this vital, multi-professional effort, in community pharmacy and general practice settings. There is emerging evidence and recognition of this role. However, we need to better understand the experiences and attitudes of pharmacy teams in suicide prevention activities and how to optimise roles. Our aim was to examine changes in attitudes and preparedness following a suicide awareness e-learning video produced for pharmacy teams.

Approach

A cross-sectional study including a video intervention for pharmacy teams in England with pre- and post- surveys of the 14-item Attitudes to Suicide Prevention (ASP) scale (possible range 14-70 with lower scores representing positive attitudes) and the exploration of experience, was conducted. Pharmacy staff in England could access a suicide awareness video via the Centre for Pharmacy Postgraduate Education (CPPE). This video was an on-the-sofa conversation involving experts, including those with lived experience, and tailored to a pharmacy audience. Between September 2019 and March 2021, people accessing the video were invited to complete anonymous pre- and post-viewing assessments of attitudes and to share their prior experience. Data were analysed using SPSS®. Descriptive statistics and t-tests used to compare the paired analyses, are reported.

Findings

Of 354 survey respondents working in primary care, 93% worked in community pharmacy, 2% in General Practice and 5% in both sectors. Most were pharmacists (61%) and the remainder had other roles (e.g., pharmacy technicians (18%)). 71% reported interacting with a patient about suicide at least once and were mostly prompted by patient disclosure (39%), with just 5% directly asking a patient. 10% reported participation in suicide prevention training. In the paired analysis (n=127), attitude towards suicide significantly improved immediately following the video (ASP pre: 31.43, S.D.6.12; ASP post: 28.67, S.D.6.73).

Consequences

Pharmacy staff working in primary care speak with people about suicide. Until recently, this has mostly been without formal training on suicide prevention best practices. Using a video intervention demonstrated an improved in attitudes of pharmacy team members towards suicide and demonstrates support for training and upskilling pharmacy team members. Our study highlights the need to continue to explore the role and appropriate training for GP pharmacists to complement the Zero Suicide Alliance training which has since been completed by community pharmacy staff.

3A.3 Clinical supervision during the integration of Advanced Clinical Practitioners into General Practice teams: a realist evaluation.

Presenter: Benjamin Jackson

Co-authors: Chris Burton, Steve Ariss

Institutions: University of Sheffield

Abstract

Problem

NHS policy is to support the provision of General Practice (GP) services through the introduction of non-medical advanced clinical practice (ACP) roles. Understanding what mechanisms enable them to support the principals of high-quality generalist care remains a key research gap. An important part of their development is supported through clinical supervision by experienced GPs to help their successful adaptation to a new role and context. This challenge is more acute in deprived communities where there is a greater amount of multi-morbidity in the population. Studies have also shown that GP services serving these more deprived communities rely more on non-medical ACP roles than others do.This study aims to identify the key contexts and mechanisms that support this new workforce to deliver equitable high quality primary health care.

Approach

A realist evaluation of clinical supervision during the integration of new non-medical advanced clinical practitioners into general practice teams. An initial programme theory was developed through public and stakeholder engagement and published literature. Fifty-four candidate context-mechanism-outcome configurations (CMOCs) were identified. Paired, realist semi-structured interviews were undertaken with 13 ACPs working in general practice (within three years of starting their new roles) and 12 of their supervising GPs. Purposeful sampling ensure half of participants were from practices serving communities in the most deprived quintile by IMD score. Interviews were transcribed and analysed using NViVo with independent verification of codes by CB and SA. A combination of deductive and inductive analysis was used to both test candidate CMOCs and recognise demi-regularities suggesting new CMOCs. Refinement and modification of the initial programme theory is in process with ongoing patient and practitioner engagement.

Findings

Ongoing analysis of the interview transcripts will be presented with the important contexts and mechanisms supporting both desired and undesired outcomes: key contextual aspects relate to practitioner background, supervisor training and team structure, key mechanisms relate to confidence, trust, and professional development. Findings are set against mid-range educational theories such as entrustable professional activities, reflective practice and a supervision alliance.

Consequences

The findings of this study will contribute to the evidence for a principles-based approach to the clinical supervision of this new primary care workforce. Purposeful sampling ensures that findings are derived from, and relevant to, the experience of practitioners delivering care to the most deprived communities. NHS policy makes understanding the key mechanisms within clinical supervision that support the integration of these practitioners and the delivery of sustainable, high-quality generalist care critical in maintaining primary care.

Funding acknowledgement

This study received a grant from the RCGP scientific foundation board

3A.4 Trainee Associate Psychological Practitioner (T/APP) working in General Practice settings to meet mental health need. The pilot year evaluation.

Presenter: Miranda Budd

Co-authors: Miranda Budd, Rebecca Gardner, Gita Bhutani, Kathryn Gardner, Ameera Iqbal, Charlotte Harding, Clare Baguley, Umesh Chauhan

Institutions: Lancashire & South Cumbria NHS Foundation Trust, University of Central Lancashire

Abstract

Problem

With so many individuals presenting in general practice with mental health need, a proactive and preventative approach to mental healthcare is required. Recommendations have been made for a wider range of practice staff within primary care, including mental health practitioners (MHPs). As the need and demand increases, new workforce supply routes are required to meet this growth. A novel development in the North West of England is the deployment of Trainee Associate Psychological Practitioners (TAPPs) to deliver brief psychological interventions focusing on preventing mental health deterioration and promoting emotional wellbeing in general practice settings. This piece of work aimed to evaluate the clinical impact, efficacy of the service provided and the acceptability of the role from the perspective of patients, services and the workforce themselves.

Approach

A mixed-methods design was used. To evaluate clinical outcomes, patients completed measures of depression (PHQ-9), anxiety (GAD-7), wellbeing (WEMWBS) and resilience (BRS) at the first session, final session and at a 4-6 week follow up. Paired-samples t-tests were conducted comparing scores from session 1 and session 4, and session 1 and follow up for each of the four outcome measures. To evaluate acceptability, three questionnaires were sent to general practice staff, TAPPs and patients to gather qualitative and quantitative feedback on their views of the TAPP role. Quantitative responses were collated and summarised. Qualitative responses were analysed using inductive summative content analysis to identify themes.

Findings

T-test analysis revealed clinically and statistically significant reductions in depression and anxiety and elevations in wellbeing and resiliency between session 1 and session 4, and at follow up. Moderate-large effect sizes were recorded. Acceptability of the TAPP role was established across general practice staff, TAPPs and patients. Content analysis revealed two main themes: positive feedback and constructive feedback. Positive sub-themes included: accessibility of support, type of support, patient benefit and PCN benefit. Constructive sub-themes included: integration of the role and

limitations to the support. Overall, the introduction of TAPPs into General Practice, to deliver brief mental health prevention and promotion interventions, is both clinically effective and acceptable to all.

Consequences

The results of this service evaluation highlight the potential for psychology graduates, trained through programmes such as the TAPP course, to fill a mental health workforce gap within General Practice. This has important implications, as we move to meet the recommendations set out in the NHS Long Term plan in relation to care in the community and more people having access to psychological interventions. This work also helps to highlight the importance and benefits of engaging in preventative and promotional approaches in mental health care.

Funding acknowledgement

Health Education England

3A.5 GP trainers' perceptions of their learning needs: supporting trainees for the MRCGP clinical examination

Presenter: Israr Khan

Co-authors:

Institutions: Health Education England

Abstract

Problem

Addressing differential attainment in the Membership of the Royal College of General Practitioners' (MRCGP) clinical examination is a strategic priority for Health Education England (HEE). Although general practice (GP) trainers are paramount in supporting the success of trainees, their professional development has long been neglected. This study identifies the learning needs of GP trainers and the ways they can be best supported to improve trainee performance in the MRCGP clinical examination. Research questions 1. What are GP trainers' perceptions of their knowledge and skills to support trainees in need of additional support for the MRCGP clinical examination? 2. What are the learning needs of GP trainers that allow them to best support trainees in need of additional support for the MRCGP clinical examination? 3. How can GP trainers be best supported to enable them to provide training for doctors in need of additional support for the MRCGP clinical examination?

Approach

GP trainers (n = 163) in the Black Country (BC) were invited to participate via email. A mixture of quantitative and qualitative data was gathered using an online questionnaire.

Findings

Most study participants (n = 52) were well experienced and had insight into differential attainment in the MRCGP clinical examination. Most trainers' main knowledge and skills gap were a poor understanding of the recorded consultation assessment (RCA) and difficulty understanding cultural differences.

Consequences

A comprehensive analysis identified that the BC GP trainers had specific knowledge and skills gaps when assisting trainees in need of additional support. Potential changes could be considered, including upskilling trainers in cultural empathy, ensuring they have an adequate understanding of the RCA, and providing specific resources and networks to refer to when assisting trainees in need of additional support.

3B.1 Safety of colchicine or NSAID prophylaxis when initiating allopurinol for gout: propensity score-matched cohort studies

Presenter: Richard Partington

Co-authors: Edward Roddy, Ram Bajpai, Harry Forrester, Richard Partington, Christian Mallen, Lorna Clarson, Nishita Padmanabhan, Rebecca Whittle, Sara Muller

Institutions: Keele University School of Medicine

Abstract

Problem

Gout is the most common form of inflammatory arthritis. Urate lowering therapy, most commonly prescribed in primary care, is used in the treatment of gout to lower serum urate levels and reduce the frequency of flares. initiating urate-lowering therapy for gout commonly triggers a gout flare and hence co-prescription of colchicine or non-steroidal anti-inflammatory drug (NSAID) prophylaxis is recommended. However, little is known about the incidence of adverse events associated with prophylaxis. We aimed to determine the risk of adverse events severe enough to warrant seeking healthcare associated with colchicine or NSAID prophylaxis when initiating allopurinol for gout.

Approach

We conducted two matched retrospective cohort studies, using linked data from the Clinical Practice Research Datalink (CPRD) and Hospital Episode Statistics (HES) datasets. Adults aged ≥18 years with a Read code for gout and a new allopurinol prescription between 1997 and 2016 were identified. We compared those prescribed (1) colchicine or (2) NSAID prophylaxis with those prescribed no prophylaxis, individually matched by age, sex and propensity to receive prophylaxis, to reduce the impact of confounding by indication. Adverse events were identified in CPRD and HES using Read and ICD10 codes respectively. Associations between colchicine or NSAID prophylaxis and the first occurrence of each outcome were investigated using mixed effects Cox proportional hazards models. CPRD Gold and Aurum datasets were analysed separately and then combined using inverse variance fixed-effects two-stage individual patient data meta-analysis.

Findings

13,945 individuals who initiated allopurinol with colchicine prophylaxis were matched to 13,945 who initiated without prophylaxis (mean age 63.62 years (95%CI 63.54, 63.70); 78% male). Diarrhoea was the most common adverse event in the colchicine group, followed by nausea/vomiting, myocardial infarction (MI), neuropathy, myalgia, and bone marrow suppression. Diarrhoea (Hazard Ratio 2.22 (95% CI 1.83, 2.69)), MI (1.55 (1.10, 2.17)), neuropathy (4.75 (1.20, 18.76)), myalgia (2.64 (1.45, 4.81)), and bone marrow suppression (3.29 (1.43, 7.58)) were significantly more common with colchicine prophylaxis compared with no prophylaxis.22,880 individuals who initiated allopurinol with NSAID prophylaxis were matched to 22,880 who initiated without prophylaxis (mean age 63.34 years (95%CI 63.26, 63.42); 78% male). Angina (Hazard Ratio 1.62 (95% CI 1.38, 1.90)), acute kidney injury (1.49 (1.14, 1.96)), MI (1.82 (1.37, 2.43)), and peptic ulcer disease (2.03 (1.34, 3.07)) were significantly more common with NSAID prophylaxis than without.

Consequences

Gastrointestinal, cardiorenal, myoneuropathic and haematological adverse events were associated with prophylaxis, although absolute event rates were low. This information can inform treatment decisions and choice of colchicine or NSAID for prophylaxis when initiating allopurinol.

Funding acknowledgement

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3B.2 Prescribing cascades in community-dwelling adults: a systematic review

Presenter: Emma Wallace

Co-authors: Ann Doherty (1), Faiza Shahid (2), Orla Cotter (1), Frank Moriarty (1), Fiona Boland (1), Barbara Clyne (1), Tobias Dreischulte (2), Tom Fahey (1), Seán Kennelly (3, 4), Emma Wallace (1)

Institutions: (1) RCSI University of Medicine and Health Sciences, (2) University Hospital of Ludwig-Maximilians-University Munich, (3) Trinity College Dublin, (4) Tallaght University Hospital

Abstract

Problem

Potentially inappropriate prescribing (PIP) is common among patients with polypharmacy and increases the risk for adverse drug reactions (ADRs). Several prescribing indicator sets exist to reduce PIP but these do not address prescribing cascades. Prescribing cascades occur when a medication is used to treat an ADR to another medication and are an important aspect to consider when characterising problematic polypharmacy. The aim of this systematic review is to identify and collate an exhaustive list of published prescribing cascades in community-dwelling adults.

Approach

This review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines and pre-registered with PROSPERO [CRD42021243163]. A systematic search of Medline (Ovid), EMBASE, PsycINFO, CINAHL and the Cochrane Library was conducted from inception to end of March 2021. Grey literature searches were conducted using Open Grey, MedNar, Dart Europe and the Turning Research Into Practice (TRIP) databases. Inclusion criteria were: population-community-dwelling adults (≥18 years); risk-prescription medication with the potential to cause side effects; outcomes-initiation of a new medicine to 'treat' or to reduce the risk of an ADR; study type-prospective and retrospective cohort studies, case-control and case series studies. Title and abstract screening, full-text screening, data extraction and quality assessment was conducted independently by two reviewers. Two reviewers independently assessed study quality using the relevant Joanna Briggs Institute Critical Appraisal Checklist. A narrative synthesis is currently in progress.

Findings

The electronic database search yielded 15,588 papers. A further 51 titles were retrieved from forward and backward citation searches. A total of 98 papers were included in the narrative synthesis. The majority of studies (n=91) were hypothesis-driven or examined a predefined list of medications as potentially initiating a cascade. Seven studies conducted exploratory analyses to identify potential new prescribing cascade signals. The drug classifications most commonly identified as initiating a cascade were nervous system and cardiovascular system medications. The most common ADR symptoms investigated included depression, Parkinsonism or extra-pyramidal side effects (EPS), oedema and urinary incontinence. Drug classifications most commonly initiated in response to an ADR included antidepressants, anti-Parkinson drugs, diuretics and drugs for urinary frequency. Commonly investigated cascades included the calcium channel blocker-loop

diuretic and anticholinesterase-drugs for urinary frequency cascades.

Consequences

Prescribing cascades occur for many drug classifications, with nervous system and cardiovascular system medications commonly identified as both triggers and outcomes of potential prescribing cascades. Identification of the most frequently reported prescribing cascades in the literature can support prescribers to intervene to prevent the development of prescribing cascades in the future. Potential ADRs should form part of the differential diagnosis prior to initiating new medications to treat emergent symptoms among those already prescribed pharmacotherapy.

Funding acknowledgement

This work is funded by a grant from the Health Research Board (HRB) Ireland [HRB Emerging Clinician Scientist Awards-2020-002] awarded to EW. BC is funded by the HRB Emerging Investigator Award [EIA-2019-09].

3B.3 The association between antihypertensive treatment and serious adverse events by age and frailty: an observational cohort study of 3.8 million patients followed up for a decade

Presenter: James Sheppard

Co-authors: Constantinos Koshiaris, Richard Stevens, Sarah Lay-Flurrie, Amitava Banerjee, Brandon K. Bellows, Andrew Clegg, FD Richard Hobbs, Subhashisa Swain, Juliet A Usher-Smith, Richard J McManus

Institutions: University of Oxford, University College London, Columbia University, University of Leeds, University of Cambridge

Abstract

Problem

Antihypertensives are effective at reducing the risk of cardiovascular disease, but limited data exist quantifying their association with serious adverse events (SAEs), particularly in older people with frailty. This study examined this association using data from nationally representative electronic health record data.

Approach

This was a retrospective cohort study, utilising linked data from the Clinical Practice Research Datalink in England between 1998-2018. Eligible patients were aged 40+ years, with a systolic blood pressure reading between 130-179mmHg and not previously prescribed antihypertensive treatment. Outcomes were defined as hospitalisation or death within 10 years from falls (primary outcome), hypotension, syncope, fractures, acute kidney injury (AKI), electrolyte abnormalities and gout. The association between treatment and SAEs was examined by Cox regression adjusted for propensity score. Subgroup analyses were undertaken by age and frailty.

Findings

Of 3,834,056 patients followed for a median of 7.1 years, 484,187 (12.6%) were previously prescribed antihypertensive medication in the 12 months prior to the index date. Antihypertensives were associated with an increased risk of hospitalisation or death from falls (HR 1.23, 95%CI 1.21-1.26), hypotension (HR 1.32, 95%CI 1.29-1.35), syncope (HR 1.20, 95%CI 1.17-1.22), AKI (HR 1.44, 95%CI 1.41-1.47), electrolyte abnormalities (HR 1.42, 95%CI 1.43-1.48) and gout (HR 1.35, 95%CI 1.32-1.37). The absolute risk of SAEs with treatment was very low, with four fall events per 10,000 patients treated per year. In older patients (80-89 years) and those with severe frailty, this risk was increased, with 53 and 62 fall events per 10,000 patients treated per year (respectively).

Consequences

Antihypertensive treatment is associated with SAEs, but the absolute risk of harm is very low. However, in older patients and those with severe frailty, this absolute risk is increased and physicians should take this into consideration when making prescribing decisions.

Funding acknowledgement

This study was funded by the Wellcome Trust, Royal Society, National Institute for Health Research

3B.4 Prescribing trends in older patients with multimorbidity and significant polypharmacy recruited to the SPPiRE trial

Presenter: Caroline McCarthy

Co-authors: Caroline McCarthy (1), Barbara Clyne (1), Susan M Smith (1, 2), Michelle Flood (3), Frank Moriarty (1, 3)

Institutions: 1) HRB Centre for Primary Care Research, Department of General Practice, RCSI University of Medicine and Health Sciences, Dublin 2. 2) Department of Public Health and Primary Care, Trinity College, Dublin 2, 3) School of Pharmacy and Biomolecular Sciences, Royal College of Surgeons in Ireland, University of Medicine and Health Sciences, Dublin 2

Abstract

Problem

Identifying appropriate outcome measures to evaluate the effectiveness of medicines management multimorbidity interventions is challenging given the heterogeneity of the population. Supporting prescribing in older patients with multimorbidity (SPPiRE) was a cluster randomised controlled trial that demonstrated that a GP delivered individualised medication review led to a small but significant reduction in the number of medicines in older patients aged ≥65 years and prescribed ≥15 medicines (IRR 0.95, 95%CI; 0.899, 0.999, p=0.045) but no effect on potentially inappropriate prescriptions (PIP). The trial concluded that prescribing in this patient group is complex and that repeated assessments of prescribing related measures, may be more appropriate to allow analysis of the trends in prescribing in this vulnerable group. The aim of this study was to evaluate changes in prescribing in patients with significant polypharmacy (≥15 repeat medicines) during the SPPiRE trial, specifically looking at the commonly prescribed, commonly stopped and started, inappropriately prescribed and low clinical effectiveness medicines by ATC code.

Approach

We retrospectively analysed trial prescription data for 404 participants aged ≥65 years and prescribed ≥15 repeat medicines that were submitted at baseline and follow up by 51 recruited general practices. A dataset of 13,828 individual ATC coded medicines was generated and analysed using descriptive statistics.

Findings

There were 7,051 repeat medicines prescribed at baseline, of which 1,203 (17.0%) were PIP and 6,779 at follow-up of which 1,054 (15.5%) were PIP. The most commonly prescribed medicines by drug group at baseline were proton pump inhibitors (PPIs) (82% of participants), statins (77%), antiplatelets (61%), paracetamol, beta blockers and diuretics (all 48%). At follow-up, there was a reduction in the prescription of most drug groups, the largest reductions were in antiplatelets (5%), inhaled beta agonists (4%) and calcium channel blockers, non-steroidal anti-inflammatory drugs and diuretics (all 3%). The drug groups that were most frequently inappropriately prescribed were benzodiazepines and z drugs (98% of

prescriptions were classified as PIP), medicines with anticholinergic potency (75%), PPIs (74%), NSAIDs (66%), diuretics (59%), and anti-psychotic medicines (38%). Overall 87 participants (22%) were prescribed at least one medicine classified as having a low clinical effectiveness reducing to 74 (18%) at follow up.

Consequences

At baseline, there was a high prevalence of PIP, including high risk medicines such as benzodiazepines and diuretics, indicating that these may be areas that warrant specific attention for patients with significant polypharmacy. Overall there was a reduction in prescribing of most drug groups during the study period indicating some degree of deprescribing, which may reflect an increasing focus on this area of medicines management.

Funding acknowledgement

This research in funded by the Health Research Board Primary Care Clinical Trial's Network, Ireland (CTN-2014-011).

3B.5 Understanding the medication safety issues for patients with mental illness in primary care: a scoping review

Presenter: Matthew J Ayre

Co-authors: Matthew J Ayre, Penny J Lewis, Richard N Keers

Institutions: The University of Manchester

Abstract

Problem

Medication safety and mental illness are currently two major global health concerns. Whilst there is emerging evidence from mental health hospital settings to identify key medicines safety improvement targets, our understanding of the epidemiology and aetiology of medication safety challenges along with the impact of remedial interventions for those with mental illness in community settings is fragmented despite the majority of patients with mental illness (90%) being managed in primary care. The aim was to collate global evidence concerning the epidemiology, aetiology, and remedial interventions of medication safety challenges across community settings for patients with mental illness.

Approach

Six databases (Embase, Medline, PsycINFO, Cochrane reviews, CINAHL and Web of Science core collection) were searched for studies of medication safety in psychiatric patients in primary care published between January 2000-October 2021. Additional studies were obtained by screening of reference lists of relevant/included studies and searches in Google Scholar. Studies were included if they were set in a primary care/community context, included a study population with a psychiatric diagnosis from which data could be extracted, reported on medication safety challenge epidemiology/aetiology/interventions, and one or more classes of psychotropic or error subtype. Non-English language studies were excluded. Data was extracted by one reviewer with independent extraction by two additional reviewers. Medication safety issues were grouped under the umbrella term of drug-related problems.

Findings

Seventy-nine studies were included of which 77 reported epidemiological data, 25 reported aetiology, and 18 evaluated an intervention. The most common DRP reported on was non-adherence (62/79, 78.5%) followed by Potentially Inappropriate/Hazardous Prescribing (PIP/PHP)/Potentially Inappropriate Medication (PIM) (20/79, 25.3%). The most common primary care setting was general practice (31/79, 39.2%). Of the 25/79 (31.6%) studies reporting aetiology data 19 of these (76.0%) reported on causes of non-adherence. Patient-related

factors were reported in 23/25 (92.0%) studies and prescriber-related in 8/25 (32.0%). Eighteen studies evaluated the impact of remedial interventions with most relating to improving adherence rates (11/18, 61.1%). The introduction of specialist pharmacists were the most common intervention (10/18, 55.6%). Interventions had limitations and there were mixed outcomes with 18/18 studies reporting positive outcomes on some medication safety measures however, 6/18 (33.3%) reported little difference on some medication safety measures between groups.

Consequences

Our findings reveal that patients with mental illness may experience a variety of medication safety challenges in community care. To date the available research exploring medication safety in this setting is heavily orientated toward non-adherence and PIP/PIM, with comparatively less attention for other preventable safety outcomes such as medication errors and related harm. Further research is required to explore the epidemiology and aetiology of medication errors and drug-related harm in-depth as this data is currently lacking. This will help inform an intervention as preventable events may be amenable to one.

3B.6 Large-scale Helicobacter pylori eradication aspirin trial (HEAT): results of a real-world outcomes trial in primary care

Presenter: Michael Moore

Co-authors: Tony Avery, Carol Coupland, Colin Crookes, Jen Dumbleton, Richard Hobbs, Denise Kendrick, Gregg Rubin, Murray Smith, Diane Stevenson, Chris Hawkey for the HEAT Trialists

Institutions: University of Nottingham, University of Oxford, Newcastle University

Abstract

Problem

Helicobacter pylori may be pivotal in the pathogenesis of upper gastrointestinal (UGI) ulcer bleeding from aspirin therapy. The Helicobacter Eradication Aspirin Trial (HEAT) investigated whether H.pylori eradication reduces ulcer bleeding.

Approach

HEAT was conducted using novel real-world methodology developed by the Simple Trials for Academic Research (STAR) group. Participants aged over 60 and taking aspirin (≤325mg daily) for at least 4 months were recruited from primary care between 2012 and 2017. H. pylori positive participants were randomised to one week of eradication treatment (twice daily lansoprazole 30mg, clarithromycin 500mg and metronidazole 400mg) or matching placebos. Recruitment was managed using a bespoke web-based database that communicated directly with a programmed search tool downloaded at participating practices that identified all suitable patients and automatically sent trial information and an invitation to participate. The primary endpoint was hospitalisation due to definite or probable peptic ulcer bleeding. A random 10% sample had end of trial breath testing. Electronic follow up including Hospital Episodes Statistics (HES) and GP databases identified potential endpoints. All episodes mentioning GI bleeding or peptic ulcer were evaluated by an independent blinded adjudication committee. The primary endpoint was analysed using a Cox proportional hazards model. Data are still blinded and presented as Group A and B.

Findings

In total, 1,208 GP practices across the UK sent 188,875 invitation letters; 30,166 patients were consented to the trial, of whom 5,353 H. pylori positive participants (17.8%) were randomised. Mean age at randomisation was

73.6 (SD 7.0) and 73.8% of participants were male. In the retest sample 90.7% in Group A tested H. pylori negative vs 24.3% in Group B. During nearly 30,000 person-years of follow-up 607 episodes of clinically significant GI bleeding were identified and 45 were adjudicated as definite or probable UGI ulcer bleeds after randomisation. The rate of presentation varied significantly by time. Events occurred more frequently in the first 2-years of follow up in group B. There was a significant difference between the groups in the early period which was not evident later.

Consequences

Full analysis and unblinded results will be available for the conference. STAR methodology shows that large-scale real world trials of issues of clinical interest can be conducted in primary care.

Funding acknowledgement

NIHR HTA

3C.1 A universal preventative approach to mental health in community settings

Presenter: Miranda Budd

Co-authors: Rebecca Gardner, Naim Ismail and Miranda Budd

Institutions: Lancashire & South Cumbria NHS Foundation Trust

Abstract

Problem

There is a clinical need for a greater focus upon mental health prevention and promotion work. Without it, the costs of mental health problems by 2026 are expected to rise to unaffordable levels. Providing preventative psychological interventions, at a universal level, may be a cost and time effective way of creating more resilient communities who are less likely to develop mental health difficulties. General practice settings, located within communities, appear to be a logical place for this. Therefore, the aims of this work are two-fold. First, to assess the current state of the literature in terms of community psychological interventions in primary care. Second, to evaluate the impact of community psychological interventions delivered by a new psychological workforce in primary care.

Approach

Two-part mixed methods approach. PART 1: a systematic review (following PRISMA guidelines) exploring existing research into psychological interventions in Primary care which aim to build community resiliency. Academic articles and grey literature are reviewed. PART 2: A service evaluation was conducted into community-based interventions delivered by a new psychological workforce in primary care (Trainee Associate Psychological Practitioners, or TAPPs). The number of people and types of communities reached are summarised. Psychometric measures of anxiety, depression, wellbeing and resiliency, as well as qualitative feedback from TAPPs and the community, are used to assess the efficacy of these interventions.

Findings

In progress. PART 1: 1939 academic articles were identified and 10 were included in the final review after title, abstract and full text screening. 8 articles were identified from the grey literature, with 4 included in the final review after screening. The articles have been categorised under four main focus areas: early prevention for community resiliency, specific community populations, resiliency programs, and specific services. Data extraction is currently underway. PART 2: Data was collected from 14 TAPPs. They engaged in a range of community-based work, such as delivering workshops to local schools, charities and organisations and running community groups. Over 9 months, TAPPs reached 1237 people in the community.

Preliminary results from the community groups show significant reductions in depression and increases in resiliency and wellbeing. Staff, patients and the public responded positively to the community interventions. TAPPs reported some difficulty in engaging with the community, in part due to Covid-19 and being a new workforce.

Consequences

Preliminary findings from the systematic review and TAPP service evaluation are positive and suggest that community interventions are effective. Providing psychological practitioners in primary care with time away from 1:1 work with patients, to deliver community-level interventions, may provide an effective and universal preventative approach to addressing mental health needs in the NHS. The findings also highlight the need for more robust research into efficacy in this area.

Funding acknowledgement

This work was funded by Health Education England.

3C.2 Assessment of osteoporosis risk in men with prostate cancer receiving androgen-deprivation-therapy: a cross-sectional descriptive study using a primary care audit database

Presenter: Qizhi Huang

Co-authors: Caroline Mitchell, Emma Linton, Janet Brown

Institutions: University of Sheffield

Abstract

Problem

Osteoporosis in men is often under-diagnosed and under-treated. Androgen deprivation therapy (ADT) is a common treatment for prostate cancer (PC), but can also adversely affect bone health causing increased risk of osteoporosis and fragility fractures. As men live longer with PCa, more people will receive ADT for a long period of time. Our aim was to evaluate how the risk of osteoporosis was assessed for men with PCa receiving ADT in a primary care population.

Approach

We undertook a cross-sectional descriptive study using routine audit data that were extracted by hand-searching records of PCa patients identified using SNOMED codes. FRAX-TM and NOGG guidelines were used for fracture risk assessment. The primary outcome was the fracture risk assessment gap: the proportion who require ADT with high risk but didn't receive a fracture risk assessment or DXA scan.

Findings

Of 53 patients identified with PCa (aged 53-90), half (27 men) have had ADT – 32% (17/53) current treatment (10 metastasis, 7 localised advanced); 19% (10/53) had previous ADT. The average ADT duration was 35 months. No documentation of FRAX assessment in any man on ADT. One patient underwent a DXA scan as part of a research project; 4 had DXA for other causes. The median 10-year probability of fracture was 5.55 (hip) and 10.48 (osteoporotic) in patient receiving current ADT compared with 3.02 (hip) and 7.04 (osteoporotic) without respectively ($p<0.05$). 53% (9/17) men with current ADT were recommended a DXA scan (NOGG amber risk). Age was another risk factor.

Consequences

There is an unmet need to assess fragility fracture risk and intervene in men with PCa taking ADT. As men live longer with cancer, clinicians in primary care will get more involved in the management of cancer treatment induced complications.

Funding acknowledgement

NIHR funded clinical lectureship

3C.3 Neural respiratory drive among patients with COPD with mild or moderate airflow limitation: consistency, reliability, and association with other biomarkers

Presenter: Timothy Harries

Co-authors: Gill Gilworth, Christopher J Corrigan, Patrick B Murphy, Nicholas Hart, Mike Thomas, Patrick T White

Institutions: King's College London, University of Southampton

Abstract

Problem

Neural respiratory drive (NRD) is central control of breathing maintained through the respiratory muscles, particularly diaphragm and intercostals. It is closely correlated to the subjective measurement of breathlessness in asthmatic and COPD patients (stable state and during exacerbation). NRD has been measured by surface electromyography (EMG) of the second intercostal space parasternal muscles (EMGpara) predominantly among those COPD patients with severe or very severe airflow limitation. It has not previously been assessed in ambulatory patients with mild or moderate breathlessness in primary care. Its potential as a primary care research tool has not been evaluated. This study aimed to assess the stability of NRD across a group of COPD patients with mild or moderate airflow limitation (FEV1 (forced expiratory volume in one second) ≥50% predicted) in primary care who were receiving treatment with inhaled corticosteroids (ICS). Relationships between NRD and changes in quality of life, lung function and breathlessness were assessed.

Approach

Patients with stable mild or moderate COPD were recruited from general practices. Second intercostal space NRD (EMG rms max; NRDI), spirometry, measures of breathlessness and quality of life (CRQ-SAS, mBorg, CAT, mMRC) were recorded at baseline, 3 and 6-month follow-up. Each patient was randomly allocated to continue using ICS (maintenance group) or to gradually withdraw ICS (initial withdrawal group) over 6 weeks. Intraclass correlation coefficients were calculated for each of the variables and Bland-Altman plots generated.

Findings

40 COPD patients with mild or moderate airflow limitation were recruited. There was high intra-rater and inter-rater agreement in each of the measures of NRD, including EMG rms max & NRDI (ICC > 0.9). There were moderate correlations between EMG rms max and FEV1% predicted (Pearson's of r= -0.42; p=0.01) and between NRDI and FEV1% predicted (Pearson's of r= -0.35; p=0.04). No correlation was seen between EMG rms max and any of CAT, CRQ domains, mBorg, or mMRC scores. No correlation was seen between NRDI and CAT, CRQ domains scores (except for Pearson's of r= -0.42; p=0.01 between NRDI and CRQ mastery at 6 months assessment). Correlations were seen at baseline between NRDI & mBorg (Spearman's rho 0.37, p=0.03), and at 6 months between NRDI & mMRC (Spearman's rho 0.48, p=0.003). There were no consistent relationships between NRD readings and other measures of breathlessness.

Consequences

Assessment of NRD using surface electromyography had a moderate correlation with FEV1 but was not found in this study to be a sensitive measure of breathlessness in COPD patients with mild or moderate airflow limitation. The reliability of the recording in these patients and its established usefulness

in assessing breathlessness in severe and very severe airflow limitation suggests that if the measurement can be made more sensitive it will be useful in interventional studies in primary care settings.

Funding acknowledgement

T H Harries was supported by an NIHR Doctoral Research Fellowship

3C.4 Public perceptions of risk of COVID-19 infection and transmission in the community: a longitudinal qualitative study

Presenter: Alishba Kashif

Co-authors: Alishba Kashif, Anna Torrens-Burton, Fiona Wood, COPE Cymru study team

Institutions: Cardiff University, PRIME Centre Wales and Division of Population Medicine,

Abstract

Problem

Members of the public and communities have had to adapt rapidly in recent years to the COVID-19 pandemic. One of the challenges faced by the government and health professionals including primary care has been to implement and encourage transmission-prevention behaviours such as social distancing, hand hygiene and wearing face coverings. Heightened risk perception of COVID-19 has been shown to affect behaviour. Currently, there is a knowledge gap about how risk perception and behaviour changes over time as the pandemic has rapidly changed.We aimed to understand public perceptions of, and responses to, the risks of COVID-19 infection and transmission in the UK during the first 12 months of the pandemic. This includes an understanding of perceived susceptibility to COVID-19, severity of COVID-19 and the determinants of infection and transmission prevention behaviours.

Approach

Longitudinal qualitative interviews as part of the UK COVID-19 Public Experiences (COPE) Study were conducted. The COPE study is a mixed methods longitudinal study comprising of online surveys and remote interviews.Participants were recruited through social media and the research recruitment platform Healthwise Wales. Interview participants were selected from those who had completed the survey using a maximum variation sampling approach to capture a wide demographic range. Each participant was interviewed three times: in May 2020 (n=28), November 2020 (n=24) and March 2021 (n=20). Data were analysed using thematic analysis guided by the Health Beliefs Model and was supported by NVivo.

Findings

Perceptions of susceptibility and seriousness of COVID-19 changed over time depending on the availability of the vaccine, government guidelines, social media, and COVID-19 incidence levels. In latter interviews participants compared the severity of COVID to the common cold. Adherence to prevention measures were broadly followed although there was some confusion with the government guidelines changing frequently and varying by location. Some participants also felt patronised by being told to follow rules without being informed of the science and reasoning behind the measures. Prevention measures were considered more acceptable when interacting with elderly or medically vulnerable people. Some participant's felt strong emotions of anxiety and fear at the start of the pandemic which led to heightened perceptions of COVID-19 risk and the need for additional precautions. A number of participants also reflected on how pandemic fatigue was influencing their behaviour.

Consequences

Members of the public have adapted their risk perceptions of, and consequent behaviours to, COVID-19 during the first 12 months of the pandemic. Our research will help primary care, policy makers and healthcare professionals understand public risk perceptions and tackle pandemic fatigue for COVID-19 and possible future pandemics.

Funding acknowledgement

Sêr Cymru – Welsh Government

3C.5 Perceptions of Australian general practitioners on e-cigarettes as a smoking cessation aid

Presenter: Melis Selamoglu

Co-authors: Melis Selamoglu, Bircan Erbas, Hester Wilson, Jamie Brown, Chris Brown

Institutions: Monash University, La Trobe University, South East Sydney Local Health District, University of New South Wales, University College London

Abstract

Problem

A significant policy change in Australia impacting the availability of nicotine for use in electronic cigarettes (e-cigarettes) took effect in late 2021. This change means that nicotine containing liquids for use with e-cigarettes will only be available by prescription from a health care provider. This is an opportunity for health care providers, and general practitioners (GPs) in particular, to discuss use of e-cigarettes and provide information and support for smoking cessation more broadly to patients who use, or are interested in using, these devices. Little is known about Australian GPs preparedness to have discussions with patients and their perceptions about prescription of e-cigarettes to support smoking cessation.The aims of this study are to determine GPs knowledge, attitudes, beliefs and confidence discussing e-cigarettes with patients for smoking cessation and intentions to prescribe e-cigarettes to quit smoking.

Approach

An online survey was distributed nationally through practice-based research networks, primary health networks and social media platforms. Selection of survey items was guided by the theory of planned behaviour and included questions assessing knowledge, attitudes, beliefs and prescribing intentions of e-cigarettes as a smoking cessation aid.

Findings

A preliminary analysis of the first 209 responses was conducted. Two thirds of respondents were female GPs (64%) and average age was 43 years. Most GPs worked in a group practice (70.6%) with an average of 12 years' experience. Almost all GPs believed it is their responsibility to aid patients in getting the correct help to quit smoking (97.8%), but less than half agreed that e-cigarettes were a suitable smoking cessation aid (46.2%) or safer than regular cigarettes (42.8%). GP colleagues (54.9%) and online GP groups (50%) were likely to influence their decision to counsel, recommend and prescribe e-cigarettes. Australian GPs knowledge about e-cigarettes was poor and they were not confident in their ability to discuss e-cigarettes with patients or prescribe nicotine e-liquid. The vast majority (88.6%) have not recommended the use of e-cigarettes, 43.2% won't be prescribing e-cigarettes and 40.2% do not recommend e-cigarettes for smoking cessation.

Consequences

Internationally there are mixed and contested views on the role of e-cigarettes to support smoking cessation. In Australia, nicotine containing e-liquids are only available by prescription from authorised prescribers. Our preliminary analysis of data suggests

Australian GPs have limited knowledge about e-cigarettes, do not recommend e-cigarettes and lack confidence in discussing e-cigarettes as a smoking cessation aid with their patients. The results from this study will provide crucial insights to guide policy and guidelines for practice, particularly in regards to GPs work in supporting patients to quit smoking.

3C.6 Can an extended lifestyle score predict adverse outcomes in people with rheumatoid arthritis? Cross-sectional study of 5295 UK Biobank participants.

Presenter: Jordan Canning

Co-authors: Stefan Siebert, Bhautesh Jani, Hamish Foster, Carlos Celis-Morales, Frances Mair, Barbara Nicholl.

Institutions: University of Glasgow

Abstract

Problem

Traditional lifestyle risk factors, such as smoking, poor diet and physical inactivity, have been shown to contribute to adverse outcomes in people with rheumatoid arthritis (RA). Less is known about the added impact of emerging lifestyle risk factors, specifically short/long sleep duration and sedentary behaviour, in this population. We aimed to explore the associations, if any, between individual lifestyle risk factors and an extended lifestyle score and risk of all-cause mortality and major adverse cardiovascular events (MACE; myocardial infarction and stroke) in an RA population.

Approach

Cross-sectional study involving UK Biobank participants with self-reported RA. Lifestyle factors included: alcohol intake, diet, physical activity, sleep duration, smoking and television viewing time. Lifestyle factors were summed to create an extended lifestyle score ranging from 0-9, and participants categorised as more healthy (score 0-2), moderately healthy (score 3-5) and less healthy (score 6-9). Cox proportional hazards models were used to explore associations between individual lifestyle factors and lifestyle score categories and risk of all-cause mortality and MACE, adjusting for age, sex, socioeconomic status, body mass index, additional long-term condition count and other individual lifestyle factors (if applicable).

Findings

In UK Biobank, 5295 (1.05%) participants self-reported RA at baseline (mean age 59; 70% female) and had available lifestyle data. Over follow up, 594 deaths (median 11 years) and 328 MACE (median 8 years) were recorded. Smoking increased the adjusted risk of all-cause mortality (hazard ratio (HR) 1.94 [95% confidence interval (CI) 1.46-2.56]) and MACE (HR 1.83 [95% CI 1.24-2.70]), when compared to participants who have never smoked. Risk of MACE was increased in participants who reported short (<7 hours) or long (>9 hours) sleep durations (HR 1.38 [95% CI 1.02-1.87]), compared to participants who reported sleep durations between 7-9 hours per night. The adjusted HR for participants in the less healthy lifestyle category was 2.05 [95% CI 1.18-4.30] for all-cause mortality and 2.25 [95% CI 1.18-4.30] for MACE. For participants in the moderately healthy category, the adjusted HR was 1.27 [95% CI 1.08-1.50] for all-cause mortality and 1.42 [95% CI 1.13-1.78] for MACE.

Consequences

Participants with RA and moderately or less healthy lifestyles were at increased risk of all-cause mortality and MACE when compared to those with more healthy lifestyles, with a dose response association. This risk appears to be driven by smoking and short/long sleep duration (for MACE), thus emphasis on these individual lifestyle risk factors may be better than the use of an extended lifestyle score for risk stratification purposes. Further research

in this area, particularly relating to sleep duration and quality, may help clinicians give more tailored lifestyle-related advice to individuals with RA, reducing morbidity and mortality burden in this population.

Funding acknowledgement

This work is supported by the Medical Research Council [grant number: MR/N013166/1].

3D.1 Perspectives on the production, and use, of rapid evidence in decision making during the COVID-19 pandemic- a mixed methods study

Presenter: Andrew W Murphy

Co-authors: Barbara Clyne, Lisa Hynes, Colette Kirwan, Máire McGeehan, Paula Byrne, Martha Killilea, Susan M Smith, Mairin Ryan, Claire Collins, Michelle O'Neill, Emma Wallace, Andrew W Murphy

Institutions: National University of Ireland Galway , RCSI University of Medicine and Health Sciences, Health Information and Quality Authority, PPI Ignite National University of Ireland Galway,

Abstract

Problem

Evidence-based decision making and practice are central to optimising population health, particularly during health emergencies. However, the relationship between provision of research evidence and subsequent decision-making is complex. In the context of a pandemic, factors such as scientific uncertainty and lack of clear and rapidly available evidence, may negatively impact decisions-making. In order to provide timely evidence many organisations have moved from the traditional systematic review to rapid evidence products, such as rapid reviews or rapid response briefs. To date this change in practice has not been well evaluated. Therefore this study aimed to describe and explore perceptions of the provision and use of rapid evidence synthesis, to support decision making, by two innovative national Irish projects. These projects were developed, de-novo and expeditiously in the face of the growing emergency, to provide evidence syntheses for policy makers (known as The Policy Project) and evidence based clinical recommendations for front-line general practitioners (GPs) (known as The GP Project), in the context of the COVID-19 global pandemic

Approach

Using a convergent parallel mixed methods study design (March - August 2020), 25 semi-structured interviews were conducted with a purposive sample of 14 Evidence-Providers (EPs: those who generated and disseminated rapid evidence) and 11 Service-Users (SUs: GPs and policy makers, who utilised the evidence). Interviews were transcribed verbatim and thematically analysed. Quantitative data were summarised descriptively. Data were analysed separately and triangulated during the interpretation phase of the research

Findings

The Policy Project comprised 27 EPs, producing 30 reports across 1,432 person-work-days. The GP project comprised 10 members from three organisations, meeting 49 times, and posting evidence based answers to 126 questions, from front-line GPs. Four unique themes were generated. 'The Work' highlighted that a structured but flexible, organisational approach to producing evidence was essential. Ensuring quality of evidence products was challenging, particularly in the context of absent or poor-quality evidence. 'The Use' highlighted that across both projects, rapid evidence products were considered invaluable to decision making. Trust and credibility of EPs were key,

however, communication difficulties were highlighted by SUs (e.g. website functionality). 'The Team' emphasised that a highly skilled team, working collaboratively, is essential to meeting the substantial workload demands of evidence production and tight turnaround time. 'The Future' highlighted that investing in resources, planning and embedding evidence synthesis support, is crucial to national emergency preparedness.

Consequences

The findings demonstrate that providing rapid evidence support is crucial to support national policy decision making, and to inform direct patient clinical care in general practice, during a pandemic. The credibility of EPs, a close relationship with SUs and having a highly skilled and adaptable team to meet the workload demands were identified as key strengths that optimised the utilisation of rapid evidence.

Funding acknowledgement

BC is funded by Health Research Board (HRB) Emerging Investigator Award (EIA-2019-09). Funding was provided, for transcription costs, by the Irish College of General Practitioners (ICGP), the Academic Departments of General Practice in Ireland (AUDGPI) an

3D.2 Involving patients in patient safety: is a co-designed multi-component intervention to involve patients and carers in patient safety feasible and acceptable?

Presenter: Rebecca Lauren Morris

Co-authors: Caroline Sanders, Kay Gallacher, Mark Hann, Sally Giles, Nicola Small, Stephen Campbell

Institutions: NIHR Greater Manchester Patient Safety Translational Research Centre, University of Manchester

Abstract

Problem

Involving patients and carers in patient safety within primary care is a key international and national policy but how to do this in a way that is acceptable and feasible has remained underexplored. In principal working patients and carers should be active partners in patient safety with healthcare professionals and be empowered to use personalised approaches to identify safety concerns and work together to prevent them. The patient safety guide for primary care (PSG-PC) intervention was co-developed in partnership with patients, carers, GP and community pharmacists and aims to address key patient safety questions and identify key points where they can make their primary care interactions safer to be active partners in their care.

Approach

The PSG-PC is a multi-component intervention with a mobile application compatible with Android and Apple devices, paper booklet, and website. Using a 2 phase non-randomised feasibility mixed methods pragmatic study the acceptability and feasibility of the PSG-PC was evaluated. All patient and/or carer participants received the paper version of the PSG-PC and could download the mobile versions. The PSG-PC feasibility study explored the feasibility of recruiting and retaining participants with an intervention targeted at improving patient safety. Participants were recruited through primary care and the intervention and recruitment process were adapted to reflect the change in primary care due to COVID-19 restrictions. Participants were aged 18 years or older who attend appointments at general practice. It measured secondary outcomes for improving patient safety, health status, patient empowerment and reducing health service utilisation over 6 months. Data was collected via a postal or online survey. Semi-structured interviews were conducted with participants

about their experiences of using the PSG-PC to examine acceptability of the intervention.

Findings

8 general practices were recruited over both phases and 132 patient and/or carer participants and 69%follow-up rate at 6 months. Participant's reported using the PSG-PC from planning appointments to recording information post-consultation. The PSG-PC was able to be responsive and useable during changes in care provision because of COVID-19. Interviews participants described a continuum of involvement of preferences for their involvement in patient safety which influenced engagement with the PSG-PC and more broadly the concept of patient safety.

Consequences

Involving patients and carers in patient safety needs a tailored and personalised approach that enables patients and carers to use resources like the PSG-PC routinely and help challenge assumptions about their willingness and ability to be involved in patient safety.

Funding acknowledgement

This work was funded by the National Institute for Health Research (NIHR) Greater Manchester Patient Safety Translational Research Centre (award number: PSTRC-2016-003).

3D.3 Opportunities and challenges of meta-reviews encountered whilst conducing a meta-review of 'Optimal Interventions for Perinatal Anxiety (PNA) in Primary Care'.

Presenter: Victoria Silverwood

Co-authors: Laurna Bullock, Shoba Dawson, Carolyn A. Chew-Graham, Tom Kingstone, Katrina Turner, Joanne Jordan.

Institutions: VS, LB, JJ, TK, CC-G – School of Medicine, Keele University KT, SD – Centre of Academic Primary Health Care, Bristol University TK, CC-G – Midlands Partnership NHS Foundation Trust CC-G - WM ARC

Abstract

Problem

Systematic reviews of reviews, or 'Meta-reviews', which provide summaries of existing evidence around a specific topic, are considered the highest level of evidence on the evidence pyramid. Although the general methods used for a meta-review are often the same as those used for a systematic review, there are some important differences and unique methodological challenges that authors might encounter. This presentation will discuss some of these differences and challenges, whilst also summarising meta-review methods and how they add value to the existing literature.

Approach

A meta-review is currently being undertaken to describe the evidence base for non-pharmacological interventions used to manage women with perinatal anxiety (PNA) in primary care. A number of systematic reviews exist around this topic area and a meta-review approach will provide a synthesis of their results and conclusions. The meta-review is registered on PROSPERO (ID: CRD42021202611) and will be reported in line with PRISMA 2020 guidelines.A search strategy was developed with input from an information specialist to identify systematic reviews of interventions for PNA in twelve medical databases. Titles and abstracts were independently screened by two authors (100% by VS, 20% by LB) and full texts were fully screened and read by VS and LB. Data were extracted at the review level by both authors and compared. Discrepancies were resolved by discussion. The quality of evidence of the included systematic reviews was assessed by the AMSTAR2 tool. Data have been presented narratively and in tabular format.

Findings

38 reviews were included in the meta-review. The first challenge encountered was that there was significant heterogeneity within the included studies regarding study design and outcome measures. Whilst a narrative synthesis has been performed, this heterogeneity meant that a meta-analysis was not possible Secondly, as anticipated, there was significant overlap between the eligible systematic reviews in terms of including the same primary studies. To avoid potential bias, it is important to accurately report where this overlap occurs. Methods to address this overlap included developing a citation matrix, identifying primary studies that were included in more than one review with overlap being quantified at the review level. Thirdly, some of the systematic reviews reported results using outcomes of interest that applied to broader perinatal mental health problems, rather than PNA. The original protocol was amended to reflect this so only outcomes of interest that focused on PNA were extracted.

Consequences

Meta-reviews provide high-level evidence and are an appropriate method for summarising the evidence base when several systematic reviews already exist on the topic. The resulting overview can be useful for clinical policy decision makers. However, they can be complex and more challenging to conduct than a systematic review, so may require more time and methodological expertise.

Funding acknowledgement

VS is a Wellcome Trust funded Clinical PhD Fellow. This work forms part of a PhD entitled: 'Defining optimal interventions for Perinatal Anxiety (PNA) in a primary care population: a multi-methods study.'

3D.4 The International Survey of People Living with Chronic Conditions (PaRIS survey): development of the conceptual framework and patient questionnaire

Presenter: Jose M Valderas

Co-authors: Ian Porter, Mieke Rijken, Oliver Groene, Rosa Suñol, Rachel Williams, Michael van den Berg, Marta Ballester, Janika Blömeke, Laura Thomas, Peter Groenewegen, Wienke Boerma, Katherine De Bienassis, Candan Kendir, Niek Klazinga, Dolf De Boer

Institutions: National University of Singapore, University of Exeter, Nivel (Netherlands Institute for Health Services Research, Optimedis A.G., Fundacion Avedis Donabedian Research Institute, Ipsos MORI, Health Division OECD

Abstract

Problem

The Organization for Economic Cooperation and Development (OECD) PaRIS survey aims to support countries in improving care for people living with chronic conditions by collecting information on how these people experience the quality and performance of the primary and ambulatory care services they use in their country. We present the development of the conceptual framework and the patient questionnaire.

Approach

Starting from the OECD Health Care Quality Indicators framework (2015), we identified frameworks and conceptual models relevant to the needs of people receiving primary and ambulatory care for chronic conditions using bespoke structured searches in PubMed. A draft framework was refined though international virtual patient co-development workshops and iterative engagement with an international Patient Advisory Panel (PaRIS-

PP) and supported by an international and multidisciplinary Technical Advisory Community (TAC) and oversight by a Working Party of OECD member states representatives. For the questionnaire, candidate scales and items were identified through a series of systematic literature reviews, engagement with international stakeholders including the PaRIS-PP, TAC and National Project Managers (NPMs) of participating countries, and oversight by a member states representatives. Four instruments for each domain were shortlisted using predefined criteria. A subsequent modified Delphi procedure was implemented for selecting a core instrument for each domain and additional relevant scales/items as informed by psychometric evaluation of the candidate instruments (EMPRO method). Further consultations took place with the relevant stakeholders to confirm the suitability of the proposed questionnaire.

Findings

78 frameworks were identified. Each iteration of feedback from PaRIS-PP and TAC and the international patient co-development workshops contributed to the final framework, which identifies the following domains (number of subdomains): patient reported outcomes (4); patient reported experiences of care (9); health and health care capabilities; health behaviours (4); individual and sociodemographic factors; delivery system design; and health system design, policy and context. 217 instruments were identified measuring one or more of the domains of the conceptual framework. The final version of the survey includes the following sections: “Your health” (18 items; PROMIS Global-10, WHO-5, and others), “Managing your health and health care” (26; Porter-Novelli and others), “Your experience of health care (P3CEQ and others)” (49), About yourself (24).

Consequences

This conceptual framework has been developed through a systematic, replicable and inclusive process. A comprehensive questionnaire has been constructed based on the PaRIS survey framework for people living with chronic conditions and following an inclusive approach. The current questionnaire will be evaluated through cognitive testing before being piloted in a Field Trial in participating countries. These subsequent stages will offer opportunities for improving the questionnaire, ensuring adequate performance and offering insights into how the questionnaire can be modified to reduce the burden of administration while balancing comprehensiveness and metric performance.

Funding acknowledgement

This work has been funded by the Organization

3D.5 The development and validation of population clusters for integrating health and social care: A mixed-methods study on Multiple Long-Term Conditions

Presenter: Glenn Simpson

Co-authors: Prof Andrew Farmer, Dr Leanne Morrison, Prof Miriam Santer, Dr Zlatko Zlatev, Dr Mazen Ahmed, Prof. Michael Boniface, Dr Hajira Dambha-Miller, Dr Glenn Simpson*

Institutions: University of Southampton

Abstract

Problem

Evidence is urgently needed about how to generate clusters based on health and psycho-social need and to quantify the potential impact of clusters on improving long-term health and reducing care costs and other resources inputs. This project will develop and validate population clusters that

consider health and social care determinants and subsequent need for people with MLTC, using data-driven Artificial Intelligence methods, which will be compared with expert-driven approaches.

Approach

Semi-structured interviews exploring patient, carer and professional perspectives on clinical and socio-economic factors influencing experiences of living with or seeking care for MLTC. Inductive reflexive thematic analysis will be used to analyse the data. Close re-reading of transcripts will generate a coding framework. Codes will be synthesised into themes. QSR NVivo software will support data management.

Findings

This research is a work in progress. Fieldwork is being conducted during February – March 2022. Interim findings from the fieldwork will be reported in April 2022. A full account of the findings will be available for presentation at the conference in July 2022. These findings will focus on the themes of: the lived experiences of people with MLTC; the experiences of those who provide care, treatment and support to people with MLTC; the healthcare, social care and wider social determinant 'challenges' of caring for people with MLTC; and insights relating to better approaches to providing care and support to those experiencing MLTC.

Consequences

The final research outputs will offer health and social care commissioners and policymakers reliable evidence for a new approach to managing MLTC, in particular, utilising a 'whole patient' approach to inform tailoring of intervention development specific to each MLTC cluster. The evidence generated by the study has potential to be a powerful tool for delivering holistic personalised care and in doing so, reduce the human cost and resource burden of MLTC.

Funding acknowledgement

National Institute for Health Research funding, Artificial Intelligence for Multiple Long-Term Conditions (Multimorbidity) Programme.

3D.6 Can we use Serious Adverse Events to assess representativeness of randomised controlled trials? An observational analysis using aggregate and individual-level data from clinical trials and routine healthcare data

Presenter: Peter Hanlon

Co-authors: Peter Hanlon, Elaine Butterly, Anoop SV Shah, Laurie J Hannigan, Sarah H Wild, Bruce Guthrie, Frances S Mair, Sofia Dias, Nicky J Welton, David A McAllister

Institutions: Institute for Health and Wellbeing University of Glasgow, London School of Hygiene and Tropical Medicine, Norwegian Institute of Public Health, Usher Institute University of Edinburgh, Centre for Reviews and Dissemination University of York, Population Health Sciences University of Bristol

Abstract

Problem

Randomised trials (trials) provide causal estimates of treatment efficacy, but there are concerns that trial findings may not be applicable to under-represented patients such as older people and those with multimorbidity and frailty. However, assessing the representativeness of trials to patient populations is complex and inherently subjective. We aimed to explore (i) the representativeness of trials by comparing Serious Adverse Events (SAE) in trials with those expected based on hospitalisation and death rates for people with the same index

condition in routine care, (ii) whether multimorbidity counts predict SAEs in trials and in routine care, and (iii) whether there are residual differences between observed and expected SAE rates after accounting for multimorbidity.

Approach

We performed an observational analysis of individual and aggregate-level drug trial data for 21 index conditions compared to population-based routine healthcare data (routine care). Trials identified from clinicaltrials.gov. Aggregate data from 483 trials (n=636,267). Individual participant data (IPD) from 125 trials (n=122,069). Routine care comparison from linked primary care and hospital data from SAIL databank (n=2.3M). Our outcome of interest was incident SAEs. SAEs are routinely reported in trials. In routine care, SAEs were based on hospitalisations and deaths (which are SAEs by definition). We compared trial SAEs from aggregate trial data to expected SAEs based on age/sex standardised routine care populations with the same index condition. Using IPD, we assessed the relationship between multimorbidity count and SAEs in both trials and routine care, and assessed the impact on the observed/expected SAE ratio additionally accounting for multimorbidity.

Findings

For 12/21 index conditions the pooled observed/expected SAE ratio was <1, indicating fewer SAEs in trial participants than in routine care. A further 6/21 had point estimates <1 but the 95% CI included the null. The median pooled estimate of observed/expected SAE ratio was 0.60 (95% CI 0.56-0.65; COPD) and the interquartile range was 0.44 (0.34-0.55; Parkinson's disease) to 0.88 (0.59-1.33; inflammatory bowel disease). Higher multimorbidity count was associated with SAEs across all index conditions in both routine care and trials. For all trials, the observed/expected SAE ratio moved closer to 1 after additionally accounting for multimorbidity count, but it nonetheless remained below 1 for most.

Consequences

Trial participants experience fewer SAEs than expected based on their age, sex and index condition. This suggests lack of trial representativeness, which has implications for trial applicability and estimating net treatment benefits. The difference between observed and expected SAEs is only partially explained by differences in multimorbidity count. Age/sex standardised observed/expected SAE ratios offer clinicians and guideline developers an objective, readily calculable, metric of trial representativeness, which may help guide assessment of the applicability of trial findings to routine care populations in whom multimorbidity and frailty are common.

Funding acknowledgement

David McAllister is funded via an Intermediate Clinical Fellowship and Beit Fellowship from the Wellcome Trust (Grant reference - 201492/Z/16/Z). Peter Hanlon is funded through a Clinical Research Training Fellowship from the Medical Research Council (Gra

3E.1 EMPOWER Exploring & Mapping PriOrities for Women's health technology, Equipment, kit, devices, and pRoducts

Presenter: Sharon Dixon

Co-authors: Abigail McNiven, Neda Taghinejadi, Philip Turner, George Edwards, Sabrina Keating, Gail Hayward, Katy Vincent, Olivia James

Institutions: Nuffield Department of Primary Care Health Sciences, University of Oxford, Nuffield Department of Women's and Reproductive Health, University of Oxford, Exeter College, University of Oxford

Abstract

Problem

Research and development in the field of women's health has been historically under-prioritised and current policy seeks to address this. Women's health and well-being could be improved by having new or better 'technology, including things women use themselves at home and those used by clinicians. However, we do not yet know which unmet needs are felt to be a priority for technology development by women and the clinicians who care for them.

Approach

We used a priority setting partnership approach to bring together women and clinicians views on unmet needs in women's healthcare and their ideas about possible solutions or improvements in technology that could help with these. With a steering committee comprising primary and secondary care clinicians and PPIE advisers, we co-developed a qualitative survey for women and clinicians which has been distributed widely. In parallel, we are holding 4-6 virtual PPI and stakeholder discussions, sampling across health need, life-course experience, and background. Following this round of stakeholder engagement, we will collate and publish a longlist of potential un-met needs and potential solutions, check for existing technologies which could help and review the evidence for their benefit and hold a partnership priority setting event to develop a top-ten list of priority areas of un-met need.

Findings

Our survey findings to date reveal unmet needs regarding: contraception support including IUCD insertion, pregnancy and labour monitoring; dignified examination of women (including devices which could promote women's autonomy or self-examination); improved home testing equipment (including smears and infection testing); equipment for prolapse care; and improved dilators. We have received suggestions about many ways in which technology could support women's health including accessing information and support about their health, to inform healthcare encounters, and to support treatment and care. Technologies which can support the interface between women and encounters with healthcare settings with validated evidence, symptom trackers, information and public health prompts were identified as an area of interest. By the time of conference, we will be able to present our long-list, technology evidence checker resource, and the partnership list of priorities for unmet needs and suggestions for innovations.

Consequences

We intend that the findings of this project will guide both academic and industry teams regarding the priorities for technology development to improve women's healthcare.

Funding acknowledgement

This project was funded by the National Institute of Health Research (NIHR) School for Primary Care Research (SPCR) (grant number 525)

3E.2 The Australian Contraception and Abortion Primary Care Practitioner Support (AusCAPPS) Network: A protocol for delivering and evaluating an online community of practice

Presenter: Danielle Mazza

Co-authors: Mazza D, Assifi A, Botfield J, Black K, Taft A, Bateson D, McGeechan K, Norman WV

Institutions: Monash University, University of Sydney, Latrobe University, Family Planning NSW, University of British Columbia

Abstract

Problem

Long-acting reversible contraception (LARCs), such as intrauterine devices (IUDs) and implants, are effective at preventing pregnancy but use amongst Australian women remains low. In the context of informed choice, general practitioners (GPs), practice nurses (PNs), and community pharmacists (CPs) could be instrumental in providing information and services to support choices such as LARC. However, uptake is limited by misperceptions, lack of public education, and lack of practitioner experience, practice systems, mentoring, and support. Similar issues prevent adequate availability of early medical abortion (EMA) where approximately 10% of GPs prescribe and fewer than 20% of pharmacists dispense EMA medication in Australia. Access to LARC and EMA services is particularly difficult in rural and remote areas.

Approach

To address these issues, the AusCAPPS study was developed to improve access to LARC and EMA in primary care in Australia. The primary objective is to establish, deliver and evaluate an innovative multidisciplinary online community of practice (the AusCAPPS Network) supporting GPs, PNs, and CPs to deliver LARC and EMA services. Secondary objectives are to increase the number of pharmacists certified to provide/dispense EMA and to increase GPs prescribing LARC and EMA.The AusCAPPS Network is a partnership between international and Australian researchers and stakeholders in contraception and abortion care. We will use mixed-methods to evaluate outcomes from this 3.5-year project: (a) a national pre- and post-intervention survey to undertake geo-mapping and understand service provision and identify gaps across the country, assess changes in the number of dispensers and prescribers, and knowledge and attitudes of participants; (b) health services data to assess changes in LARC and EMA prescriptions; and (c) a realist evaluation involving Google analytics and participant interviews to analyse how the intervention was received.

Findings

A knowledge exchange workshop with industry, professional, government, and non-government organisations was undertaken in February 2021 to identify key features for the AusCAPPS Network. Identified features included networking with peers and experts, a database of providers and dispensers of LARC and EMA services, a resource library, and links to LARC and EMA training providers. Clinical content to be included on AusCAPPS will undergo an iterative and ongoing review process informed by literature, input from expert clinicians, and feedback from governance committees whose membership comprises stakeholders in LARC and EMA service delivery. The AusCAPPS network and pre-intervention survey were both launched in July 2021. Outcome measurement will be undertaken at two years, in July 2023.

Consequences

We postulate that provision of mentorship, model practice systems, education materials, and peer and expert supports may increase clinician knowledge and confidence to

prescribe or dispense LARC and EMA. This may offer women enhanced access to the full range of contraception and abortion options.

Funding acknowledgement

The trial is being conducted with support from the National Health and Medical Research Council grant ID: 1191793 and partner organisation monetary or material support.

3E.3 The ORIENT trial: protocol for evaluating the effect of a nurse-led model on contraception and medical abortion access in Australian rural & regional general practice

Presenter: Danielle Mazza

Co-authors: Danielle Mazza, Asvini K. Subasinghe, Mridula Shankar, Jessica R. Botfield, Samantha Chakraborty, Jessica E. Moulton, Kellie Hamill, Kirsten Black, Jane Tomnay, Deborah Bateson, Kevin McGeechan, Tracey Laba, Wendy V. Norman

Institutions: Monash University, Family Planning NSW, The University of Sydney, University of Technology Sydney, University of British Columbia, London School of Hygiene and Tropical Medicine

Abstract

Problem

Women in rural and regional Australia often experience difficulties accessing long-acting reversible contraception (LARC) and medical abortion. Collaborative nurse-led models have been successfully applied in community health and family planning settings, but have not been evaluated in Australian general practice. The primary aim of the ORIENT trial is to assess the effectiveness of a nurse-led model of care, involving task-sharing between general practitioners (GPs) and practice nurses, at increasing uptake of LARC and improving access to medical abortion in rural and regional areas.

Approach

ORIENT is a stepped-wedge pragmatic cluster randomised controlled trial. We will recruit and enrol 32 general practices (clusters) that are in rural or regional Australia, and have at least two general practitioners, one practice nurse and one practice manager per cluster. The nurse-led model of care (the intervention) will be co-designed with healthcare providers, consumers, researchers, and women's health advocates. Clusters will be randomised to implement the model in a sequential manner, with the comparator being usual care. Clusters will receive implementation support to apply the nurse-led model through the following activities: (a) online clinical upskilling on LARC and medical abortion, (b) educational outreach with clinical opinion leaders to discuss practical strategies for customised implementation of the model in participating practices, and (c) engagement in an online professional community of practice for access to clinical expertise, resources and peer-support to deliver contraception and medical abortion services. Recruitment of practices into the trial will begin in March 2022.

Findings

The primary outcome that will be assessed is the change in the rate of LARC prescribing comparing control and intervention phases. Secondary outcomes will include the change in the rate of prescribing of the medical abortion combination regimen medication mifepristone and misoprostol and provision of related telehealth services. A within-trial cost-effectiveness analysis will determine the relative costs and benefits of the nurse-led model on the prescribing rates of LARC and medical abortion compared to usual care. A realist evaluation will provide contextual information relevant to intervention implementation informing considerations for scale-up and sustainability.

Consequences

This trial has the potential to increase LARC uptake and access to medical abortion for women in rural and regional Australia by supporting practice nurses to work to their full scope of practice in delivering essential reproductive health care.

Funding acknowledgement

This project is funded through the Australian government's Medical Research Future Fund Primary Health Care Research Grant

3E.4 A systematic review of the effectiveness of preconception interventions in primary care

Presenter: Danielle Mazza

Co-authors: Jessica R Botfield, Sonia Srinivasan, Kirsten I Black, Danielle Mazza

Institutions: Department of General Practice Monash University Australia, Western Health Australia, University of Sydney Australia

Abstract

Problem

Preconception care (PCC) refers to interventions delivered prior to conception that aim to optimise the health of reproductive-aged women and men, in order to improve pregnancy outcomes. As the first point of health care contact, primary care settings have the potential to improve pregnancy outcomes, however the effectiveness of primary care-based PCC is still unclear and has not recently been reviewed. We aimed to evaluate the effectiveness of primary care-based PCC interventions delivered to reproductive-aged women and men on improving health knowledge, reducing preconception risk factors and improving pregnancy outcomes.

Approach

We undertook a systematic review of OVID Medline, Cochrane CENTRAL, EMBASE, Web of Science, Scopus and CINAHL. Updating the findings of a review published in 2016, we included randomized controlled trials (RCTs) conducted in primary care settings, that included reproductive-aged women and/or men published between July 1999 and May 2021. Two reviewers independently assessed article eligibility and quality, the latter using the Cochrane risk of bias tool. We followed the Preferred Reproting for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines and registered our review with PROSPERO (CRD42021235499).

Findings

Twenty-eight articles reporting on 22 RCTs were included. All but one of the articles focussed on women. Articles were from USA (n=8), Iran (n=8), Vietnam (n=5), China (n=2), Netherlands (n=2), Australia (n=1), India (n=1) and Sweden (n=1). Interventions focused on: brief education (single session) (n=9), intensive education (multiple sessions) (n=9), folate supplementation (n=7) and/or dietary modification (n=4). Brief education improved health knowledge (n=4), reduced alcohol/tobacco consumption (n=2) and increased folate intake (n=3), while intensive education reduced spontaneous pregnancy loss (n=1), maternal stress (n=2) and alcohol-exposed pregnancies (n=2), and increased physical activity (n=2). Supplementary medication increased self-reported folate intake (n=4), and diet modification reduced pre-eclampsia (n=1) and increased birthweight (n=1). Only eight articles reported on pregnancy outcomes, with a range of interventions used, and four of these reported improvements in pregnancy outcomes. The majority of the RCTs were determined to be of low quality (n=13).

Consequences

Primary care-based PCC interventions including brief and intensive education, supplementary medication and diet modification are effective in improving health knowledge and reducing preconception risk factors in women, although there is limited evidence for men. However, given the limited number of studies reporting an improvement in pregnancy outcomes, across a variety of interventions, further research is required to determine the whether primary-care based PCC can improve pregnancy outcomes.

Funding acknowledgement

This study is funded by Bayer.

3E.5 Epidemiology and microbiological features associated with greater risk of recurrent urinary tract infection

Presenter: Maria Vazquez-Montes

Co-authors: Thomas Fanshawe, Nicole Stoesser, Sarah Walker, Gail Hayward

Institutions: University of Oxford

Abstract

Problem

The epidemiology and microbiology of recurrent urinary tract infection (rUTI) is not fully understood. Presently, rUTI is defined as 2 UTIs within 6 months or 3 within a year period. The proportion of women with ≥1 UTI who go on to experience rUTI is unknown, and there is no underpinning evidence for the definition of rUTI in use. We aimed to estimate the percentage of women with ≥1 UTI who had rUTI at least once, describe their characteristics, and identify the features that increase the risk of reinfection within 6 months from a rUTI episode.

Approach

The Infections in Oxfordshire Research Database was used to extract all urine culture results from women 16 and older reported between April 2008 and March 2019 on urines sent from healthcare settings in Oxfordshire. We included urine cultures from community settings or within 48 hours of admission to hospital, and excluded other cultures within 28 days of hospital admission, those explicitly for antenatal screening, and samples sent within 28 days from an index sample (as likely related to the index infection). We restricted the analysis of rUTI to positive cultures. To consider multiple UTIs within individuals, we used frailty models to assess the likelihood of reinfection with same species, adjusted for age.

Findings

We retrieved 697626 urine culture results performed on samples from 201927 women, 27% were positive cultures and 28%, mixed growth. In the 84809 women with ≥1 UTI, the risk of having two UTIs within 6 months was 11 times higher than of having three UTIs in that period. In the study period, 18.5% women had ≥1 rUTI episode. The age distribution of index UTI and first rUTI was markedly different, favouring women over 60. Of all positive urine cultures, 65% were of Escherichia coli (E.coli). A similar proportion was observed in rUTI episodes. Overall, the risk of reinfection with E.coli was 1.54(95%CI=1.49-1.60) times higher in those previously infected with this bacterial species than with other species. After an index rUTI, women more likely to have ≥2 UTIs within 6 months than no UTIs in the same period were older (median age=71, IQR=55-81 versus 65, IQR=43-78 years).

Consequences

This is the first study using a UK dataset to describe the population of women with rUTI, and to highlight the age distribution. This is important because even using the most

restrictive definition of UTI, based on positive urine cultures, shows that this problem is experienced by almost a fifth of women who have a single UTI, and overwhelmingly affecting older women. We found that the current rUTI definition is met within 6 months of an index UTI and not 12. Exploring alternative definitions would allow us to determine an optimal definition that permits early intervention.

Funding acknowledgement

This research was funded by an NIHR Advanced fellowship awarded to GH. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

3F.1 Workshop

More unequal than before? Access to general practice in a time of remote consultations and digital primary care.

Presenter: Jo Parsons, Helen Atherton, Gary Abel

Co-authors:

Institutions: Dr Jo Parsons, Unit of Academic Primary Care, University of Warwick
Associate Professor Helen Atherton, Unit of Academic Primary Care, University of Warwick
Professor Gary Abel, University of Exeter Medical School (Primary Care).

Abstract

Workshop aim and intended outcome / educational objectives The aim of this workshop is to encourage and facilitate discussion about inequalities associated with increased use of digital technology and remote consultations in primary care. We aim to provide a space for shared learning and discussion for attendees with a shared interest in the topic. Specifically, the workshop will explore:

- Changes in how patients access general practice as a result of the rise in the application of digital access and remote consultation.
- Which patient groups are more likely to be facing inequalities in accessing appropriate primary healthcare and what barriers they may be facing?
- How can general practice attempt to reduce inequalities in access? How can it support patients to use digital approaches to access?
- How have missed appointments changed as a result of the changes to accessing general practice. What now constitutes a missed remote appointment, and what do they look like?

Format

The workshop will have three phases.

Firstly there will be a brief presentation on the topic (approximately ten minutes), presenting background to the ideas and the questions that will be discussed in the workshop. This will draw on the research evidence generated by the workshop team.

Secondly we will use small group discussion to share ideas and views on the topic with facilitators for each group to stimulate discussion and encourage participation from all. Each discussion topic will be presented to the groups in the form of a problem-based summary, outlining a potential difficulty associated with that topic. Each small group will be asked to discuss it, in terms of how the problem might be addressed in primary care, and different possible solutions.

Finally, ideas and feedback from discussions will be brought together at the end of the session, with the workshop leaders creating visual summaries of the main points covered. Through informative and stimulating

discussion this event will provide a networking opportunity for those with research interests in this area and may identify particular priorities for future research. Content Brief introductory presentation to the aims of the session Small group discussions to 3-4 set questions to encourage discussion, debate and suggestions. Summary and close of session. Intended Audience Academics working in primary care research, clinicians (such as GPs), researchers or students with an interest in health inequality, access to general practice, digital technology or remote consultations.

4A.1 'Educational change in a crisis; what has changed and what is here to stay in undergraduate teaching and learning in General Practice.'

Presenter: Karen Kyne

Co-authors: Karen Kyne, Aileen Barrett

Institutions: NUIG Masters student, RCSI, ICGP

Abstract

Problem

Objectives- The aim of the study was to explore the decisions and decision-making strategies employed by academic GPs tasked with adapting the delivery of undergraduate general practice education curricula to virtual platforms during the pandemic and to investigate how their experiences of this adaptation might influence the development of future curricula.

Approach

Methods- Approaching the study from a constructivist grounded theory (CGT) perspective, we recognised that experiences shape perception, and an individual's 'truths' are socially constructed. Nine academic GPs from three university GP departments participated in semi-structured interviews conducted via Zoom©. Anonymised transcripts were iteratively analysed, generating codes, categories, and concepts using a constant comparative approach. The study was approved by the RCSI Research Ethics Committee.

Findings

ResultsParticipants described the transition to online delivery of the curriculum as a 'response approach'. The elimination of in-person delivery necessitated the changes rather than any strategic development process. With varying levels of experience in eLearning, participants described the need for and engagement with collaboration both internally within institutions and externally between institutions. Virtual patients were developed attempting to replicate learning in a clinical environment. How these adaptions were evaluated by learners differed across the institutions. The value and limitations of student feedback as a driver for change differed between participants. Two institutions plan to incorporate aspects of blended learning going forward. Participants recognised the impact of limited social engagement between peers on social determinants of learning.

Consequences

Conclusion and implicationsPrior experience in eLearning appeared to colour participants perceptions of its value, those experienced in online delivery were inclined to recommend some level of continuation post-pandemic. We now need to consider which elements of undergraduate education can be delivered effectively online into the future. Maintaining the socio-cultural learning environment is of critical importance but must be balanced by efficient, informed and strategic educational design.

4A.2 Supporting medical students towards future careers in general practice: a quantitative study of Irish medical schools

Presenter: Andrew W. Murphy

Co-authors: D Moran, SM Smith, E Wallace, LG Glynn, K Hanley, ME Kelly

Institutions: NUI Galway, Trinity College Dublin, RCSI, UL, ICGP

Abstract

Problem

Health systems globally are producing insufficient numbers of general practitioners (GPs) to sustain workforce requirements. In Ireland it is estimated that by 2025 the shortfall of GPs could be as high as 1,380, from a current workforce of 3,923. The importance of medical schools in promoting general practice as a career is well acknowledged, but remains relatively under-explored.

Approach

We determined the proportions of EU medical graduates from each of the six Irish medical schools who applied to GP Specialist training in Ireland over the period 2017-21 inclusive. The Spearman rank correlation was used to examine the correlations between the proportions of graduate entrants, the number of weeks spent directly on GP placement teaching at each medical school (known as authentic GP teaching) and the proportions of applicants, to GP training, from each medical school.

Findings

The number of applicants increased each year from 286 in 2017, to 685 in 2021 – a 2.4 fold increase. Between 2017-2021 inclusive, the average annual percentage of EU graduates applying to the national GP Training Program (n=1,302) ranged from 25-55% for each of the six Irish medical schools - a 2.2 fold difference between schools. There was a strong correlation between the average annual percentage of EU graduates applying to the ICGP Training Program with the proportions of graduate entrants, but this did not reach statistical significance, ($r=0.81$; $p=0.20$) and a weak, insignificant correlation with the number of weeks spent in authentic GP teaching ($r=0.2$; $p>0.50$).

Consequences

We found a marked difference in the proportions of EU graduates, from the six medical schools, opting for a career in general practice, and the reasons for this difference merits further investigation. Increased proportions of graduate students possibly increases the likelihood that a medical graduate will pursue GP as a career. Further national and international work is required to inform how best medical schools can support the generation of tomorrows general practitioners.

Funding acknowledgement

None

4A.3 Exploring teacher and learner experiences of the University of Exeter Medical School (UEMS) 2018 undergraduate general practice curriculum

Presenter: Helen Rogers

Co-authors: Alex Harding, Jane Rowe, Sham Agashi, Oliver Prescott

Institutions: University of Exeter College for Medicine and Health

Abstract

Problem

In the UK, Europe, and North America there is an urgent need to recruit more General Practitioners. The literature suggests good

quality undergraduate General Practice (GP) placement provides a rich training ground for general clinical skills. A positive experience in General Practice (GP) as an undergraduate can inspire undergraduates to consider a career in GP. However, at present, only 3% of students consider GP to be intellectually stimulating. With this in mind, the Royal College of General Practitioners (RCGP) and Society of Academic Primary Care (SAPC) introduced a GP undergraduate curriculum guide based on work-based learning theories. Subsequently, University of Exeter Medical School (UEMS) introduced a 2018 curriculum for undergraduate GP teaching, based on the same principles as the national SAPC and RCGP undergraduate GP curriculum guide. The aim of the project is to evaluate UEMS medical students and GP educators experience of the GP undergraduate curriculum. The second aim is to assess whether a GP undergraduate curriculum base on work-based learning ideas is effective in creating educationally valuable GP undergraduate placements. The intended outcome is to gain an understanding of how well the curriculum is being implemented and experienced on placement and its educational value for students and educators.

Approach

I am currently undertaking a Clinical Education and Research Masters' project in this area. Qualitative research methods will be used to undertake a participant orientated study. Little is known about this topic in the literature. Qualitative research will enable new themes and understandings to emerge and is best suited to capturing the complexity of a large programme, set in different local contexts, the GP practices. For this participant orientated study, multiple perspectives of both learners and teachers will be assessed. To promote maximum diversity of sampling, recruitment is open to medical student years and GP educators in Devon and Cornwall who teach UEMS medical students on GP placements. With University of Exeter ethics approval, Zoom will be used to interview Medical students and GP medical student trainers at UEMS. Interviews will be transcribed, coded and analysed. Grounded Theory Analysis will be used, enabling the emergence of new themes in an area not extensively covered by medical education research. Analysis will be complete by end of June 2022.

Findings

I am currently interviewing participants. I have not yet obtained interim findings.

Consequences

This research will feedback into the wider educational debates about how to create good quality GP medical student placements, educational theories behind medical undergraduate placement curricula, and the value of a GP undergraduate curriculum based on work-based learning theories. In establishing how to deliver high quality undergraduate placements in General Practice, it is hoped these findings will contribute to the debate about how to promote General Practice as a career.

Funding acknowledgement

Helen Rogers and Oliver Prescott are Deputy Community Sub Deans for University of Exeter Medical School. Alex Harding and Sham Agashi are Community Sub Deans for University of Exeter Medical School. Jane Rowe is a Senior Lecturer at University of Exeter C

4A.4 Can a student-led teaching intervention improve student and staff understanding of LGBTQ+ identities and health-related issues in undergraduate medicine?

Presenter: Marina Politis, Richeldis France & Ethan Wilson (co-presenters)

Co-authors: Richeldis France, Ethan Wilson, Alekh Thapa, Iona Lindsay

Institutions: University of Glasgow, College of Medical, Veterinary & Life Sciences, Undergraduate Medical School

Abstract

Problem

LGBTQ+ people face health inequalities that culminate in a 12-year lower life expectancy in areas of high anti-LGBTQ+ prejudice (Hatzenbuehler et al, 2017) and 1 in 4 LGBTQ+ people have witnessed healthcare staff make negative remarks about LGBTQ+ people (Stonewall, 2018). Furthermore, 70% of NHS staff have had negative experiences in the last two years related to their sexual orientation (BMA & GLADD, 2016). Despite these statistics, 85% of medical students want more teaching in this area (Arthur et al, 2021). Indeed, in a cross-sectional survey of UK medical schools, half of respondents said their institution "could do better" with respect to LGBTQ+ material in curriculum (Tollemache et al, 2021). Given this, medical education must include relevant teaching to enable current and future healthcare staff to provide LGBTQ+ inclusive care.

Approach

Members of the University of Glasgow Medical Students LGBTQIA+ Society created a pre-recorded lecture, titled 'Gender, Sex and Sexuality: Getting the Basics Right', which was sign-posted to pre-clinical medical students (n ≈ 600), and some of their tutors, via an online learning environment. Viewers were invited to complete an online questionnaire, to evaluate the resource's impact.

Findings

Despite a small sample size of responses (N=33), some key learning points were noted. Students reported increased confidence using relevant terminology, comfort in their ability to consult with LGBTQ+ patients, and recognised a need for knowledge of the LGBTQ+ community and LGBTQ+ issues as a healthcare issue. Initial qualitative analysis of written feedback identified several themes, including increased self-affirmation of own identity, acknowledgement of own areas of weakness, and improved awareness of the importance of LGBTQ+ healthcare. Where discomfort or lack of confidence existed, a majority reported this related to use of pronouns, in introductions and/or consultations. However, there was a keenness to see this incorporated into communication skills teaching. Ideally, this pilot would be repeated with a longer follow up, and expanded to include staff in the sample. Future lectures could be enhanced based on feedback. Importantly, these topics must be integrated into core curricula.

Consequences

Preliminary feedback suggests student-led teaching can increase awareness and understanding of LGBTQ+ identities and health-related issues. These methods may be transferable to other neglected areas of health and marginalised identities. Changing the current status quo of LGBTQ+ healthcare, must start within education, to provide students and staff with the knowledge they need for inclusive and effective care within a diverse population.

Funding acknowledgement

This project was completed without funding.

4A.5 What do medical students learn? What are medical students taught about Persistent Physical Symptoms? A scoping review of the literature

Presenter: Catie Nagel

Co-authors: Professor Chris Burton

Institutions: University of Sheffield

Abstract

Problem

Persistent Physical Symptoms (PPS) are physical symptoms for which there is either no underlying organic cause or the disability caused by the symptoms is disproportionate to the organic pathology. PPS are common and present to nearly every medical specialty, indeed they constitute the primary reason for consulting with a general practitioner in up to 45% of cases. Doctors and patients are frequently left feeling dissatisfied and frustrated with consultations where PPS present. Focussed communication skills training may improve the satisfaction of consultations for both patients and clinicians and the need for a 'curriculum of explanation' has been identified by previous research. It was unclear what teaching and learning had been taking place in this area.

Approach

The review used a systematic scoping approach with narrative thematic synthesis of the findings. The search strategy was designed around 3 concepts: persistent physical symptoms (including terms such as medically unexplained symptoms); undergraduate medical students; and teaching and learning Searches were conducted in three databases: Medline, PsychINFO, and Web of Science. Further citation analysis was undertaken, as well as a search of the grey literature using Google.

Titles and abstracts were reviewed and extracted by one researcher

Findings

290 records were identified. After removing duplicates and screening for relevance, using specified inclusion and exclusion criteria, 38 full text articles were reviewed. 52 educators across medical schools in the UK were interviewed in 2 separate studies. Authors found that the topic of PPS was either overlooked or taught opportunistically in the undergraduate medical curriculum. Four studies found that students internalised negative messages about patients with PPS, this was the result of implicit messaging from clinical role models. One of these studies found that students did not feel equipped to challenge their clinical tutors when negative attitudes were inferred. 11 teaching interventions on chronic pain have taken place across medical schools in Europe, the US, and the UK, but there was no record of teaching for other types of PPS. In one case teaching was integrated over 4 years, but in the remaining studies the intervention was a workshop or short course distinct from the main teaching curriculum. Nine studies used student evaluation as a measure for success and two studies used attitudinal questionnaires as a marker of improvement.

Consequences

Given the prevalence of PPS, more consideration needs to be given to the inclusion of this topic in undergraduate teaching curricula. A broader range of conditions such as chronic fatigue, or functional neurological problems should be considered for inclusion. There is a particular need to counter negative messages that students receive about patients with PPS and to equip them with the skills needed to challenge negative role-modelling.

Funding acknowledgement

This project has been made possible by funding by the NIHR for an In Practice Fellowship.

4A.6 'A drive to make change' - Exploring the views and experiences of medical students engaging in advocacy: a qualitative study.

Presenter: Mehika Sood

Co-authors:

Institutions: The University of Glasgow

Abstract

Problem

Advocacy is an important component of medicine and a recognised competency for medical graduates. Many undergraduate medical students engage in advocacy activities, but research on this topic is limited. This study aimed to explore the views and experiences of medical student advocates, and how advocacy work influences their career aspirations.

Approach

This was a qualitative study using semi-structured interviews at the University of Glasgow. Participants were recruited by purposive sampling of medical student advocacy networks to identify information-rich cases. One-on-one interviews were conducted online via Zoom, which were recorded, transcribed, and anonymised. Thematic analysis was used to generate codes from the anonymised transcripts. Codes and discrepancies were cross-checked and finalised codes were applied to the data set to develop themes and sub-themes.

Findings

Nine medical students were interviewed which included three men and six women from a variety of student advocacy organisations. There were five themes: triggers and enablers; barriers and disablers; knowledge, skills, and attributes; advocacy in the role of health professionals, and career aspirations; and teaching and assessment of advocacy. The main triggers and enablers for medical students to pursue advocacy included internal drivers (e.g. intrinsic drive and personal experiences of injustice), and external drivers (e.g. role models and the advocacy community). Obstacles for engagement in advocacy activities included lack of institutional support, personal challenges, and discomfort around professionalism in advocacy. Through advocacy work, student enhanced their knowledge of social issues and improved communication skills. Students discovered camaraderie as a part of advocacy communities and found a sense of purpose. Advocacy activities strongly influenced students' future plans. Most agreed that advocacy is an important topic in medical education, suggesting teaching it early in medical school via small-group tutorials and role-modeling. For assessment, a reflective approach was preferred over written exams.

Consequences

Medical students' engagement in advocacy has complex facilitators and barriers, and the relationship between advocacy and professionalism requires clarity. Benefits of advocacy include fostering empathy and other transferable skills required of future doctors. The main barriers to medical student advocacy are similar to those experienced by physicians, including clashes with authority figures and politicisation of advocacy work. Advocacy teaching was welcomed by students, with suggested teaching and assessment approaches proposed. The optimal learning and assessment strategy

remains uncertain, and medical institutes will benefit from further research on this topic. This study presents an opportunity for dialogue with medical faculty in Glasgow and wider afield to prompt discussion about advocacy teaching and provide clarity on the interaction between advocacy and professionalism. The suggestions put forward by participants provide a helpful starting point for such discussions.

4A.7 Extended GP placements in final year - why do students choose them?

Presenter: Lloyd Thompson

Co-authors:

Institutions: University of Dundee

Abstract

Problem

Presently there is a national shortage of medical graduates choosing General Practice (GP) as a career leading to a national shortage of GPs in the UK. It has been shown that medical student experience whilst at medical school has a significant impact upon their perception of General Practice as a career. In the final year of the undergraduate medical course at UofD, students have the option to undertake an extended GP placement whereby a 4-week SSC placement is combined with the standard 4 week GP placement to allow an 8-week continuous placement in one practice. It is not known what factors influence students' choice to undertake this extended placement. If this was understood better, it may be possible to encourage more students to undertake it and therefore improve application rates to postgraduate GP training.

Approach

All students in final year currently on GP placement (both traditional and extended) across a four month period were invited to take part in a semi-structured interview. This allowed for a more iterative approach, allowing different areas of interest to be explored as they came up in the interview. The data from these interviews was analysed using a thematic analysis approach to derive themes.

Findings

Career intentions were a motivator of choosing the extended GP placement, with students both seeking to affirm or further "test the water" with their intention for a career in GP. Those students who undertook the extended GP placement reported improved educational experiences as a result. This improved learning was due to the increased patient exposure that an extended placement offers, but this exposure was proportionally greater than the extra time allocated to the placement as students reported having greater clinical exposure in the latter half of their placements compared to the earlier half. This improved educational experience was further enhanced by the strong sense of belonging to the primary care teams that students described on an extended placement. This sense of belonging improves the student's enjoyment of the placement but also appears to empower the student to more proactively engage with the clinical workload and gain a more valuable educational experience as a result.

Consequences

The improved educational experience of an extended placement should be made more explicitly clear to students. The medical school should attempt to encourage students who feel they will not be a GP to undertake the extended placements owing to the improved educational experience offered. The concern that undertaking an extended GP placement

might limit experience in other areas of medicine should noted, and consideration given to requiring all students to undertake an extended GP placement. This would increase GP content in the delivered curriculum, in line with the requirements of Scottish Government to do so.

4A.8 Medical student attitudes towards General Practice resulting from UK media portrayal of GP during the COVID-19 pandemic

Presenter: Erin Lawson-Smith

Co-authors: Dr Sabena Jameel

Institutions: University of Birmingham

Abstract

Problem

General practice (GP) has long-standing difficulty with recruitment, with increasing strain on the workforce due to a multitude of factors including declining number of GPs, increased public expectations, and increasing number of patients per GP. A survey by the British Medical Association in 2021 found that GPs were responsible for, on average, 16% more patients than in 2015. Additionally, half of the respondents intended to work fewer hours after the pandemic and 16% intended to leave the NHS altogether. With demand increasing in this way, it is critical to inspire medical students' interest in a career in GP to boost workforce numbers and ultimately maintain a high standard of primary care in the UK. During the COVID-19 pandemic, there has been increased media scrutiny, exacerbating pressures on GP. This research assesses whether increased media scrutiny has negatively affected medical student perspectives of GP. If so, increased efforts may be needed to incentivise students into GP to meet rising demands, and the media should reflect on the ramifications of their attacks.

Approach

An online survey was distributed to UK medical students via social media in Spring 2022. The survey contained both open and closed questions, to both quantitatively estimate the effect of media portrayal of GP on medical students and explore the reasons behind these effects. 277 medical students responded. 52 responses were incomplete, leaving 225 responses included for analysis. The principal investigator was a final year medical student.

Findings

88% of respondents (n=198) recalled seeing media about GP during COVID-19. 77% of these (n=154) felt the media stance towards GP was negative, and 47% (n=93) stated "yes" or "maybe" when asked if portrayal of GP in the media during COVID-19 had affected their view of GP. Of those who stated "yes" (n=40), 92.5% (n=37) said the effects were "somewhat" or "extremely" negative.

Consequences

Results suggest that medical students have been negatively affected by the media portrayal of GP during the COVID-19 pandemic, with some students less likely to consider a career in GP as a result. More work is needed to counteract the deleterious effects of the pandemic and address the themes highlighted in this study to attract medical students to GP. This must be addressed as a priority if the increasing demands facing GPs are to be successfully met, while avoiding a decline in the standard of care provided to the public.

4B.1 Early cancer diagnosis – can outcomes in deprived areas be improved by involving community pharmacists?

Presenter: Judit Konya

Co-authors: Richard D Neal, Chris E Clark, David Bearman, John L Campbell

Institutions: University of Exeter, Health Education England, Cornwall Training Hub, Local Pharmaceutical Committe Devon

Abstract

Problem

The key to the success of cancer treatment and better clinical outcomes is early detection. Clinical outcomes from cancer are worse in deprived communities. The role of primary care is essential in early diagnosis as patients with cancer related symptoms most commonly present to primary care for initial consultation. The significantly increased workload in general practice and the difficulties deprived communities experience accessing general practice raise the possibility that other health service providers that are easily accessible, such as community pharmacies, can contribute to the recognition of symptoms representing cancer.

Approach

A scoping review of the available literature was conducted by searching PubMed using keywords “pharmacist” and “cancer”, and by handsearching relevant UK-based websites. We aimed to summarize the evidence from the UK, examining gaps in the available research outcomes.

Findings

The PubMed search identified 245 titles. Five of these were relevant. One of these studies was a systematic review with no UK-based studies included. Only one of the five publications was from the UK: an assessment of an online decision support tool that can be completed in community pharmacies.Hand searches identified the Accelerate, Coordinate, Evaluate (ACE) program, which includes five different projects contributing to the early diagnosis of cancer. Nine further studies reported on initiatives addressing raising awareness, providing education, or offering risk assessment (and in some cases referral to a GP or directly to secondary care). Methods varied, but, in general, outcomes were poorly reported or not at all.

Consequences

More evidence is needed to evaluate the effectiveness of interventions in community pharmacies aimed at recognising cancer symptoms early. Feasibility of such approaches, acceptability to patients and stakeholders, and particularly the effectiveness of the interventions and clinical outcomes need to be further characterised. In line with The National Institute for Health and Care Excellence (NICE) research recommendations, these would be best explored by comparing uptake in affluent and deprived populations to assess if the community pharmacy team can be part of a revised pathway of care.

Funding acknowledgement

JK is a GP Research Fellow, funded by Health Education England

4B.2 Exploring the impact of significant others on men on the active surveillance pathway for prostate cancer: a qualitative interview dyad study

Presenter: Hazel Everitt

Co-authors: Dr Stephanie Hughes, Professor Hazel Everitt, Dr Becky Band, Dr Beth Stuart

Institutions: University of Southampton

Abstract

Problem

Active surveillance (AS) for prostate cancer (PCa) is a monitoring programme for men with low grade, slow growing prostate cancer. The pathway aims to avoid or delay radical treatment such as surgery, and the associated unwanted side effects. However, living with an untreated cancer can have a negative psychological impact. Previous research suggests partners/significant others of men on AS are involved, important and influential in the men's experiences, acceptance and adherence to AS, and ultimately they are a big influence in treatment decision making. Research encompassing both men on AS and their significant others is limited.

Approach

This study aims to explore experiences of men undergoing AS for PCa and their significant others, with a more specific aim to explore how the significant other responses to the PCa diagnosis and AS treatment plan impact on the PCa patient. Telephone interviews were conducted with 9 men on AS for PCa and their wives (n=18). Participants were aged between 54-78, mostly White British (n=17), mostly retired (n=14) and had a mixture of education levels. Dyads were interviewed separately using a semi-structured topic guide, transcribed verbatim and coded line by line in NVivo. Following the Collaco et al. (2021) Framework Method for Dyadic Analysis paired dyad interviews were analysed in tandem, and codes charted into a table of themes. Dyadic codes were transferred from the table of themes into a working analytical framework in excel to facilitate analysis and interpretation.

Findings

Analysis is ongoing and results will be available at the conference.

Consequences

It is hoped that the results from this study can inform adjustments that may need to be made within clinical practice to ensure men on the AS pathway have the opportunity to include significant others in all PCa and AS related processes and decisions. A greater inclusion may improve AS acceptance and adherence.

4B.3 ThinkCancer! Feasibility trial - to phase 3 or not phase 3?

Presenter: Alun Surgey

Co-authors: Alun Surgey, Stefanie Disbeschl, Annie Hendry, Nia Goulden, Bethany Anthony, Daniel Walker, Nefyn Williams, Richard Neal, Clare Wilkinson

Institutions: Bangor University (AS, SD, DW, AH, BA, NG, CW), University of Liverpool (NW), University of Exeter (RN)

Abstract

Problem

Poorer cancer outcomes are associated with delayed diagnosis. Lowering referral thresholds and improving both consultation and practice system level safety netting may reduce diagnostic intervals. ThinkCancer! is a novel behaviour change intervention developed with behaviour change wheel theory, delivered as a workshop with educational and quality improvement

components focussed on the whole practice team.

Approach

A phase 2 randomised controlled feasibility trial with embedded process and economic evaluation was undertaken with 30 practices in Wales. Key aims included testing usual feasibility criteria, outcome measures and costs compared to usual care. Due to Covid 19 the intervention was delivered remotely.

Findings

Recruitment and retention criteria were met and 19/21 intervention workshops delivered. Baseline and follow up data collection was acceptable but practically more time consuming than expected. Intervention fidelity and reach improved with time due to dissemination of information through the practice. Findings from qualitative interviews, workshop feedback, NoMAD results (questionnaires based on Normalisation Process Theory to evaluate the embedding of new safety netting plans into usual practice) and data regarding outcome measures will be presented in further detail. Key themes identified by practices to improve safety netting included formalisation of safety netting plans, improved patient follow up and more focussed learning from cancer audits and significant event analysis.

Consequences

The intervention was adapted and improved in response to group discussions and post workshop feedback. Feasibility criteria were broadly met and encouraging for consideration of a larger phase 3 trial. Primary Care Interval (PCI) remains the primary outcome measure though a move from participant self-reporting to independent/researcher collection of data is proposed due to time constraints and concerns over accuracy and reporting bias. A proposal for a definitive phase 3 trial is currently being prepared.

Funding acknowledgement

The WICKED programme and ThinkCancer! feasibility trial were fully funded by Cancer Research Wales.

4B.4 Patient views about early diagnosis and prevention of breast cancer

Presenter: Mohamed Hamed

Co-authors: M Hamed*, K Vedhara*, N Qureshi*, K Potts**, D M Sibbering**, J Robertson*** and D Kendrick*

Institutions: *Centre for Academic Primary Care, School of Medicine, University of Nottingham, UK - **Familial Cancer Service, Royal Derby Hospital, Derby, UK - ***Division of Medical Sciences and Graduate Entry Medicine, University of Nottingham, Derby, UK.

Abstract

Problem

Breast cancer is the most frequent cancer among women in the UK. Early detection through the NHS Breast Screening Programme using mammograms reduces the number of deaths from breast cancer by about 1,300 a year in the UK. Researchers at the University of Nottingham are developing a blood test which can detect the first signs of cancer up to five years before a patient suffers any symptoms. The test looks for antibodies produced by the patient in response to cancer. The blood test provides opportunities for early detection through more frequent mammograms for those with positive tests and for prevention through the use of certain medications e.g. tamoxifen or anastrozole, which can reduce the risk of developing breast cancer by up to 50%. The purpose of this study is to explore the views of the patients and GPs on facilitators and barriers to early diagnosis of breast cancer using an autoantibody blood test and

chemoprevention for those with positive tests.

Approach

Semi-structured interviews with 30 women who are at variable risk of developing breast cancer; 15 women aged 40-59 years with above population risk of breast cancer attending the Familial Cancer Service at the Royal Derby Hospital and 15 women aged 41-80 years registered with participating general practices from Nottinghamshire and Derbyshire. Interviews were analyzed using framework analysis using NVivo software. Participants also completed a brief Patient Questionnaire, covering demographic characteristics, brief information on risk factors for breast cancer, perception of breast cancer risk and cancer worry

Findings

This study found that facilitators for the use of a blood test for the early detection of breast cancer include belief that early diagnosis saves lives, ease of access, convenience and availability of rapid test results. The barriers include worry about test results and needle phobia. Facilitators for considering preventive medication include reducing the risk of breast cancer, having a higher risk of breast cancer, caring responsibilities, available information and support in weighing up pros and cons of medication, and monitoring of serious side effects. Barriers for considering preventive medication are side effects, interaction with other medications and impact on quality of life.

Consequences

These findings enhance understanding of patients' views on the use of a blood test for early diagnosis of breast cancer and prevention of breast cancer. The barriers and facilitators identified will help clinicians provide better information and advice and help patients make informed decisions about early detection and prevention of breast cancer. Study findings will be used to inform the design of a feasibility study for a randomized controlled trial to evaluate the effectiveness of the blood test.

Funding acknowledgement

Mohamed Hamed is funded by the National Institute for Health Research (NIHR)

4B.5 Provider perceptions of interventions to encourage prevention and early diagnosis of cancer after a negative diagnosis

Presenter: Suzanne Scott

Co-authors: Ruth Evans, Brian Nicholson, Thomas Round, Jo Waller, Carolynn Gildea, Debra Smith,

Institutions: Queen Mary University of London, King's College London, University of Oxford, NHS Digital

Abstract

Problem

There are over 2 million referrals to the Two Week Wait Pathways in England annually and approximately 90% conclude with a negative (benign) diagnosis. There is evidence that patients can delay seeking help for the same or subsequent symptoms after investigations indicate a negative diagnosis for cancer, potentially due to over reassurance, fear of being perceived as hypochondrial or wasting doctor's time, or just because patients are not sure what to do next. Negative diagnosis following referral for suspected cancer may be an under-utilised 'teachable moment' when people are more responsive and receptive to health information. The purpose of this study was to investigate healthcare professionals' views about the feasibility of introducing new initiatives to offer advice and support to encourage early diagnosis and reduce future cancer risk, after an initial negative diagnosis.

Approach

Online, semi-structured interviews were conducted with practising NHS healthcare professionals involved in the referral or ongoing care of patients referred onto the two week wait pathway for suspected cancer. A convenience sample was used where participants were invited via NHS Trusts and professional networks e.g. Cancer Alliances. A topic guide was developed informed by the Capability-Opportunity-Motivation and Behaviour model. Interviews were audio-recorded, transcribed verbatim and analysed using Framework Analysis using both inductive coding, and deductive coding informed by the Theoretical Domains Framework.

Findings

36 healthcare professionals (n=14 from primary care, including practice nurses, GPs, dentist; N=22 from secondary care across referral pathways for 8 cancer sites) were interviewed between October and December 2021. Participants supported the need to explore additional ways to encourage early diagnosis of cancer. There was variability in the extent of support currently offered to patients after the two-week wait pathway for suspected cancer. Whether patients should or could be offered additional support and the content of that support was influenced by perceptions of resource requirements (e.g. consultation time, skill level of staff involved), along with judgements about the efficacy of the intervention for achieving health behaviour change, and the potential consequences including patient anxiety or confusion. Perceptions around the goals of the two week wait pathway and role of primary care influenced ideas about where support should be offered, healthcare professional's motivation to offer support, and how support might be perceived by patients.

Consequences

Providers' views usefully informed future intervention design. The content, format and delivery of initiatives directed towards patients who receive a negative diagnosis following urgent referral for suspected cancer needs to be resource-efficient, have proven impact and be coherent to patients in the context of their recent health experience.

Funding acknowledgement

Cancer Research UK

4B.6 What is the evidence behind cancer care reviews, a British primary care cancer support tool? A scoping review

Presenter: Dipesh Gopal

Co-authors: Tahania Ahmad(1), Stephanie J. C. Taylor(1)

Institutions: 1. Primary Care Unit, Centre for Primary Care, Wolfson Institute of Population Health, Barts and the London School of Medicine and Dentistry, Queen Mary University of London

Abstract

Problem

A "cancer care review" is a conversation between an adult patient recently diagnosed with cancer and their primary care practitioner, either general practitioner (GP) or practice nurse, soon after a diagnosis of cancer. Cancer care reviews (CCRs) were introduced in the UK in 2003. In recent years there have been review articles evaluating similar care assessments and plans such as holistic needs assessments, treatment summaries and survivorship care plans but there has been limited formal academic evaluation of CCRs. For adults who are living with and beyond cancer, this scoping review aims to answer the following research questions: 1. What methodology and

validated outcome measures have been used to evaluate CCRs?2. What is the evidence that CCRs improve quality of life or patient symptoms?3. What are the views of patients, their carers, and healthcare professionals on CCRs?

Approach

A scoping review was centred on population of adults who are living with and beyond cancer, a concept of cancer care reviews, and context of English language primary and secondary quantative and qualitative research. Five databases were searched including Medline, Embase, PsychINFO, Scopus and Web of Science. Records were screened initially at title and abstract level by DPG and TA independently before screening at full text level.

Findings

After removing duplicates, 3552 unique articles were found and after full text screening, 6 articles were identified. There were no papers on evaluation of CCRs and no papers showing improvement in patient symptoms or quality of life. Views of GPs and practice nurses were captured through qualitative research. GPs and practice nurses felt that CCRs were a tick-box exercise, and 53-60% found CCRs useful for clinical care. They said they had inadequate time to deliver cancer care whilst others found inadequate care coordination between primary care and secondary care which was echoed by patients. Interviews with patients found few recalled CCRs and those that recalled one did not find it particularly helpful. Partners of patients would welcome CCRs to keep themselves informed and raise personal health concerns.

Consequences

There was no research to evaluate cancer care reviews via rigorous methodology or validated outcomes and no research measuring the effect on patient symptoms and quality of life. Current research is mainly qualitative research on stakeholders' views including patients, their partners, policymakers, and GPs. Further studies should aim to identify ways to evaluate cancer care reviews and the effect on patients. Future studies with stakeholders would identify difficulties in delivering CCRs during the COVID-19 pandemic.

Funding acknowledgement

Dipesh Gopal is an In-Practice Fellow supported by the Department of Health and Social Care and the National Institute for Health Research. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of He

4B.7 Musculoskeletal pain and its impact on rates of hospitalisation and mortality in cancer: a linked electronic health record cohort study (MSKCOM)

Presenter: Kayleigh Mason

Co-authors: Kayleigh J Mason, James Bailey, Neil Heron, Michelle Marshall, Felix Achana, Ying Chen, John J Edwards, Martin Frisher, Alyson L Huntely, Christian D Mallen, Mamas A Mamas, May Ee Png, Stephen Tatton, Simon White, Kelvin P Jordan

Institutions: Keele University, Queen's University Belfast, Oxford University, Xi'an Jiaotong - Liverpool University, Bristol University

Abstract

Problem

Patients with painful musculoskeletal conditions have an increased risk of developing cancer, but less is known about whether this impacts on the longer-term cancer prognosis. This study aims to determine whether patients with painful musculoskeletal conditions have a greater incidence of hospitalisation and mortality

following diagnosis of incident primary cancer.

Approach

Data were obtained from a national primary care records database (Clinical Practice Research Datalink; CPRD Aurum) with linkage to hospitalisation and mortality records. Patients aged >45 years with incident primary breast, colorectal, lung or prostate cancer recorded in primary care were included. Patients were stratified by consultations in primary care for painful musculoskeletal conditions (defined as regional pain, osteoarthritis and inflammatory arthritis) in the 24 months prior to cancer, and also stratified by severity. Severe musculoskeletal pain was defined as prescription of strong/very strong opioids or secondary care referral in the 6 months before cancer.Time-to-event outcomes included hospital admission and all-cause mortality. Incidence rates per 1,000 person-years (IR/1000py) were calculated and multivariable flexible parametric models estimated the adjusted hazard ratio (aHR). Covariates included socio-demographics and comorbidities.

Findings

There were 428,866 patients with an incident primary cancer diagnosis (140,335 [33%] breast; 85,580 [20%] colorectal; 84,802 [20%] lung; 118,414 [27%] prostate) with median age 70 years and 50% females in the total cancer cohort. 28% of patients consulted for musculoskeletal pain in the 2 years prior to cancer diagnosis with 17% recorded with regional pain, 7% osteoarthritis and 4% inflammatory arthritis when stratified by condition, and 6% categorised as severe when stratified by severity. Patients with inflammatory arthritis and severe pain were prescribed strong/very strong opioids in the 2 years prior to cancer more commonly than those without pain (46% and 43% vs 19%, respectively). Patients with severe musculoskeletal pain had the highest risk for hospitalisation (IR/1000py 640 vs no pain 419; aHR 1.04, 95% CI 1.02-1.06) and all-cause mortality (IR/1000py 216 vs no pain 145; aHR 1.19, 1.15-1.22). Patients with musculoskeletal conditions had an increased incidence of hospitalisation (IR/1000py regional 477, osteoarthritis 543 and inflammatory 512 vs no pain 419) and mortality (IR/1000py regional 160, osteoarthritis 164 and inflammatory 186 vs no pain 145) compared to those without pain, but after adjustment for socio-demographics and comorbidity there were no increased risks observed by type of musculoskeletal condition.

Consequences

Patients with severe musculoskeletal pain were at greater risk of poorer long-term outcomes following diagnosis of incident primary cancer. Higher proportions of patients with severe musculoskeletal pain were prescribed strong/very strong opioids. This may have masked cancer pain and impacted the diagnosis of the underlying (and yet to be diagnosed) cancer.

Funding acknowledgement

This project was funded by the Nuffield Foundation (OBF/43974), but the views expressed are those of the authors and not necessarily the Foundation. Visit www.nuffieldfoundation.org. KJM, KPJ and CDM are also supported by matched funding awarded to the

4C.1 Can a novel Pharmacist independent prescriber/third sector homeless charity outreach intervention help prevent overdose in people experiencing homelessness (PEH)?

Presenter: Andrew McPherson

Co-authors: Fiona Hughes, Sharon Lucey, Richard Lowrie

Institutions: Greater Glasgow & Clyde Health Board, Health Improvement Scotland

Abstract

Problem

Scotland has the highest rate of drug-related deaths (DRDs) in Europe despite innovative strategies to counter this. A clear link between DRDs and PEH is apparent. PEH typically present with complex multi-morbidities and social challenges that are traditionally difficult to manage. PEH also have complex problems including childhood sexual trauma/violence and chaotic polysubstance misuse. A new approach to tackling these multiple needs is required to improve outcomes for Scotland's most destitute citizens.We describe:-

- comprehensive physical health, mental health, problem substance use, quality of life, health care contacts, prescribing, and physiological measures of PEH who have had at least one non-fatal overdose in the previous six months; and -
- methods of an ongoing pilot randomised controlled trial in Glasgow.

Approach

Prospective pilot randomised controlled trial of the Pharmacy Homeless Outreach Engagement Non-medical Independent prescribing Rx (PHOENIx) intervention, involving NHS Pharmacist independent prescribers working with third sector workers assessing, treating and referring PEH on outreach while offering help with social problems. Funded by Scottish Drug Deaths taskforce to ascertain any differences between PEH in intervention and usual care at 6 and 9 months. Baseline data were collected during face-to-face interviews within low threshold accommodation and includes an assessment of health and addictions, housing, benefits, treatment burden. Additional data were gathered from hospital and community systems to ascertain attendance at Emergency Department(ED), GP and addictions services. Participants were then randomised to PHOENIx or usual care. The approach also includes embedded qualitative and economic analyses.

Findings

One hundred and twenty eight participants were recruited as planned, via assertive outreach. Ninety-one (71.1%) are male, mean age 42.8(SD8.4) years. Median duration of homelessness 23.5(12–19.8) years. Forty-six (35.9%) participants reside in unsupported hostel accommodation. Most participants have 8 or more long term health conditions, the most common being seizures (98;76.5%) and blood borne viruses (50;39.0%). Fifty-eight (45.3%) participants had been recently assaulted and 24(18.8%) feel unsafe. Fourteen participants (11.2%) had 6-10 overdoses prior to recruitment. Forty-six participants (36.0%) reported "street Valium" as the main cause of overdose; 102(82.0%) participants presented at ED and 89(69.5%) had at least 1 hospital admission. Sixty two (48.4%) participants were allocated to weekly PHOENIx outreach for 6 months and 66 (51.6%) remained in usual care.

Consequences

These baseline data together with follow-up results will inform progression to a definitive RCT. Six and 9 month follow up data will be

available in the second and third quarter of 2022. The generalisable PHOENIx intervention may show a signal of improvement in drug related deaths and other outcomes, which is long overdue and much needed.

Funding acknowledgement

Funding for the study was provided by Drug Deaths Task Force Scotland

4C.2 Access to primary care for people experiencing homelessness during the COVID-19 pandemic

Presenter: Kelly Howells

Co-authors: Mat Amp, Martin Burrows, Jo Brown, Wan-Ley Yeung, Shaun Jackson, Joanne Dickinson, Rachel Brennan, Stephen Campbell, Darren Ashcroft, Tom Blakeman, Caroline Sanders

Institutions: The University of Manchester, Groundswell, Salford Primary Care Together, Urban Medical Practice, Bolton NHS Foundation Trust

Abstract

Problem

Despite high level of health care need amongst people experiencing homelessness, poor access is a major concern. This is sometimes due to organisational and bureaucratic barriers, but also because they often feel stigmatised and treated badly when they do seek health care (Brennan, 2018). The COVID-19 pandemic and the required social distancing measures have caused unprecedented disruption and change for the organisation of primary care, particularly for people experiencing homelessness who may not have access to a phone. Against this back drop, there are many questions to address regarding whether the changes required to deliver services to people experiencing homelessness in the context of COVID-19 have helped to address or compound problems in accessing care and inequalities in health outcomes. This qualitative study explores how the rapid change to remote care during the COVID-19 pandemic impacted the access and safety of care for people experiencing homelessness.

Approach

Individual semi-structured interviews were conducted with 21 people experiencing homelessness and 22 clinicians and support workers across 3 case study sites in Greater Manchester. An action led and participatory research methodology was employed to address the study objectives. Interviews with people experiencing homelessness were conducted by a researcher with lived experience of homelessness. Researchers with lived experience are able to engage with vulnerable communities in an empathetic, non-judgemental way as their shared experience promotes a sense of trust and integrity, which in turn encourages participation in research and may help people speak more openly about their experience. Interviews with health professionals and stakeholders concerning their experiences of delivering and facilitating care for homeless people during the pandemic will also be explored.

Findings

The move to remote telephone consultations highlighted the difficulties experienced by participants in accessing healthcare. These barriers including problems at the practice level associated with remote triage as participants did not always have access to a phone or the means to pay for a phone call. This fostered increased reliance on support workers and clinicians working in the community to provide or facilitate a primary care appointment. The findings highlighted that the responsiveness and success of implementing a remote model for people experiencing homelessness relies heavily on flexible and collaborative working across health and community organisations.

Consequences

The findings have highlighted the importance of supporting communication and choice for mode of consultation for marginalised patient groups such as people experiencing homelessness. We argue that consultations should not be remote 'by default' and instead take into consideration both the clinical and social factors underpinning health.

Funding acknowledgement

This work was funded by the National Institute for Health Research (NIHR) Greater Manchester Patient Safety Translational Research Centre (award number: PSTRC-2016-003).

4C.3 What is the uptake of, and attitude to the COVID-19 vaccination among asylum seekers and refugees in Bristol?

Presenter: Anna Gordon

Co-authors: Dr Loubaba Mumluk

Institutions: University of Bristol

Abstract

Problem

COVID-19 disproportionately affected asylum-seeking and refugee (ASR) populations in infection prevalence and disease severity, compounded by complex individual and societal factors. These include language and cultural barriers, lower health literacy, poly-traumas and mental health needs poorly understood by practitioners, and increased exposure due to mobile status and adverse living conditions contributed to by delays in the asylum process. Despite the increased risk, and significant measures to increase uptake however, vaccine hesitancy and low vaccination rates were reported in ASR populations.

Approach

A scoping literature review was conducted to develop a topic guide. Semi-structured interviews based on a diverse, purposive sample of 12 consenting service-users of three refugee projects in Bristol were conducted, transcribed verbatim and analysed thematically using NVivo software to identify emergent themes. Liaising with Bristol City Council and CCG, quantitative data surrounding vaccine uptake specific to ASR populations was shared and analysed. Qualitative and quantitative data were triangulated, and conclusions drawn from this mixed-methods approach.

Findings

Citywide vaccination data uptake over a time-span of over 1 year was analysed alongside interview transcripts from 12 individuals ranging in age from 23-48, from across the Middle East, Africa and Asian nations. Four were seeking asylum, and eight had refugee status with an even split between those part of a resettlement scheme and those travelling the UK independently. Findings indicate delayed rather than lower vaccine uptake, and reasoning for this summarised by 3 key qualitative themes. Firstly, 'systemic asylum issues', with sub-themes of regular relocation, housing and accommodation, delayed processing of applications and dependency on the charity sector impact individuals' capacity to prioritise vaccination. Secondly, "the role of fear" contributed to by social isolation, misinformation, bereavement and previous traumas generating barriers to taking the perceived additional risk of vaccination. Finally, the importance of trust regarding perceived and practical access care, the role of GPs and reliable, accessible information. We present findings with reference to Maslow's hierarchy of needs, discussing a holistic approach to interventions such as vaccination campaigns in this vulnerable and isolated population.

Consequences

In collaboration with Bristol city council, we examined identified specific ways to tailor effective interventions to this vulnerable group. These are based on an understanding of their specific barriers to vaccination and healthcare, and health needs. These include the role of communicating electronically, methods of conveying information successfully, the role of GPs and the benefits of resettlement schemes. Findings can be extrapolated to inform primary care provision for ASRs as they navigate a complex healthcare system from within an overloaded asylum system, from the perspective of managing needs, risks and benefits.

Funding acknowledgement

None Academic Foundation Programme Project

4C.4 What is the treatment burden for people experiencing homelessness with a recent non-fatal overdose?

Presenter: Caitlin Jones

Co-authors: Dr. Andrew McPherson, Dr. David Eton, Dr. Andrea Williamson, Professor Frances Mair, Dr. Richard Lowrie

Institutions: University of Glasgow, NHS Greater Glasgow and Clyde, Mayo Clinic; Minnesota.

Abstract

Problem

Homelessness and drug deaths are increasing in Scotland year on year, and Scotland has the highest drug related death rate in Europe. People experiencing homelessness (PEH) who also have problem drug use, have complex medical and social needs, with undisputed barriers to accessing services and treatments but their treatment burden (the workload of self-management and its impact on well-being) has not been described previously. Understanding treatment burden might enable shaping of appropriate interventions to support this severely disadvantaged, multiply excluded group.

Approach

The aim of this sub study is to use a validated questionnaire, the Patient Experience with Treatment and Self-management (PETS), to investigate perceived treatment burden in people experiencing homelessness in Glasgow.The Pharmacist Homeless Outreach Engagement Non Medical Independent prescribing team (PHOENIx) trial is an ongoing pilot randomised control trial investigating whether an intensive pharmacist and third sector intervention merits progression to a definitive trial. The target group are PEH with recent non-fatal drug overdoses in Glasgow. Patients who were homeless and had a non-fatal drug overdose in the preceding 6 months were recruited to the PHOENIx trial. All patients had extensive baseline data collected including the PETS. The PETS assess multiple domains of treatment burden with scale scores ranging from 0 (no burden) to 100 (high burden). This study is the first to describe treatment burden in a homeless population.

Findings

We collected data on 128 participants, the mean age of participants was 42.8 (SD 8.4), 71.1 % were male, 99.2% were of white ethnicity. The average number of long term conditions (including health conditions, mental health conditions and drug problems) was 8.5 (SD3) per participant. Mean PETS scores were highest in the domains indicating the impact of self-management on well-being, namely, physical/mental exhaustion (Mean=79.54, SD=3.26) and role-social activity limitations (Mean=64, SD=3.48). Respondents also reported experiencing challenges in doing exercise or physical therapy for their health (Mean=61.38, SD=15.81), difficulties with healthcare

services, i.e., lack of care coordination (Mean=57.9, SD=16.9), and bother due to stressful interpersonal relationships with others (Mean=53.24, SD=15.42). Scores were generally higher than those observed in other studies of non-homeless patient samples.

Consequences

In a socially-vulnerable group of patients at high risk of overdose, the PETS can be used to measure treatment burden. This study identified a profound impact of self-management on well-being and daily activities in a population at high risk with few resources. The PHOENIx intervention seeks to help patients identify and address interpersonal challenges with others and obstacles interacting with healthcare services and systems, and the current PHOENIx after overdose pilot RCT may generate a signal of improvement in self management on wellbeing and daily activities.

Funding acknowledgement

Drug Deaths Task Force

4C.5 Hairdressing salons to promote an NHS educational online application to increase awareness of breast cancer screening among women in London's deprived and ethnically diverse neighbourhoods: a feasibility study

Presenter: Maham Zaman

Co-authors: Maham Zaman*, Veline L'Esperance MSc1, Marjorie Lima de Vale Phd1 , Clare Coultas Phd1, Louise Goff Phd1, Ms Ashlyn Mernagh-iles HND, Alexis Karamanos PhD1, Salma Ayis PhD1, Vasa Ćurčin, PhD1, Stevo Durbaba MSc1, Mariam Molokhia, Phd1 and Seeromanie Hardi

Institutions: King's College London

Abstract

Problem

Women from ethnic minority and socio-economically disadvantaged backgrounds have disproportionally lower rates of participation for screening for breast cancer. Hairdressing salons are trusted community assets, and have been successfully used for women to improve breast cancer awareness and screening uptake in the United States.We aimed to determine the feasibility of recruiting, engaging, training and retaining hairdressers in salons, supported by nurses/healthcare assistants (HCAs) at local GP Practices, to promote the use of a culturally adapted existing NHS online application, supplemented by symptom checker cards, to increase breast checks (all ages) and breast cancer screening uptake (50-70 years) in women in deprived and ethnically diverse neighbourhoods.

Approach

In Phase 1 (Intervention development), hairdressers and clients will co-develop and adapt an online existing NHS online app to suit their needs. We will train hairdressers in partnership with the Macmillan team so they can respond to queries from clients regarding the app, and advise where clients can seek further support.In Phase 2 (Feasibility), we will work with four hairdressing salons and two GP Practices. We will see whether hairdressers can promote the NHS online App, whether clients use the tool, determine what enabled or prevented hairdressers and clients from performing these tasks, and collect data on recruitment and use over 6 months. A range of data collection methods will be used: intervention fidelity logs held by hairdressers, nurses and HCAs, using a TIDieR checklist and guide; and data on uptake of screening and self-check via patient questionnaires. Qualitative methods (4 focus group discussions, 12 in-depth interviews) will target the following stakeholders: hairdressers;

salon clients; nurses and health care assistants.

Findings

We will report the enablers and barriers for use of tool, breast cancer screening uptake and culturally appropriate health promotion materials. Data from focus groups and individual interviews will be analysed using thematic analysis; to support identification, analysing and reporting of patterns (themes) within data. Using qualitative and quantitative findings, the Re-AIM framework, will assist the framing of the process evaluation: Reach (e.g., recruitment and retention of salons and of clients by ethnicity and socio-economic circumstances); Effectiveness (e.g., breast self-examination, uptake of breast cancer screening); Adoption (e.g. nurse support for hairdresser); Implementation (e.g. strategies hairdresser use to promote breast cancer awareness); Maintenance (e.g. sustained motivation of hairdressers and nurses/HCAs) over study period. We will report data on uptake of breast screening and self-check by women.

Consequences

Hairdressing salon settings are a powerful community asset and community partnerships could facilitate breast cancer awareness and prevention services with equitable reach. If successful, these data will be used to design a larger study in partnership with GP practices and salons to examine if the tool increases breast cancer screening awareness and uptake.

Funding acknowledgement

Cancer Alliances Fellowship

4C.6 Variation of prescription drug prices in community pharmacies: A national cross-sectional study

Presenter: James Larkin

Co-authors: James Larkin MSc(1), Frank Moriarty PhD(1), Shane McGuinness MPharm(1), Karl Finucane MPharm(1), Karen Fitzgerald BA(1), Susan M. Smith MD(1,2), James F. O'Mahony PhD(3)

Institutions: (1) Department of General Practice, RCSI University of Medicine and Health Sciences, Dublin 2, (2) Department of Public Health and Primary Care, School of Medicine, Trinity College Dublin, Dublin 2 (3) Centre for Health Policy & Management, School of Medicine, Trinity College Dublin, Dublin 2

Abstract

Problem

There is evidence of significant variation of prescription drug prices in community pharmacies in several countries. Such variation means some patients may face additional costs, adding to an already major source of expenditure. Historically, Ireland has some of the highest retail prices for prescription drugs in Europe. High prices can lead to cost-related non-adherence and adverse health outcomes. This study's aim was to establish the availability and variation of prescription drug prices in community pharmacies in Ireland.

Approach

Using a cross-sectional design, prices were sought in community pharmacies using phone, email and website enquiries. A purposive sample of 12 prescription drugs was selected from the top 100 medications by dispensing frequency in 2017 on Ireland's main state drug scheme. For each pharmacy, the price was checked for three drugs only. Data collectors sought to contact 1,500 pharmacies by phone, 320 by email and

consult the website of 370 pharmacies. To increase ecological validity, data collectors did not reveal that the enquiries were for research. Data collectors also noted if any discount was offered. Outliers were conducted by re-contacting pharmacies. Summary and descriptive statistics were used to summarise the results. A primary outcome was the price variation between pharmacies for each medication, which was calculated as the ratio of the 90th percentile price to the 10th percentile price. Prices were compared between chain and independent pharmacies using Welch's t-test.

Findings

In total, 1,529 pharmacies responded to queries, 1,362 by telephone and 167 by email. Overall, 88% (N=1,352) of pharmacies who answered queries, provided prices. For all drugs, the average price quoted to data collectors was higher than the price paid by the state for patients who can access subsidised medicines. The ratio of 90th to 10th percentile prices ranged from 1.3-2.0 for the 12 drugs. Aspirin was the drug with the largest variation in quoted priced; the 90th percentile price of €9.12 was 97% higher than the 10th percentile price of €4.62. For nine of the 12 drugs the price was significantly higher ($p<.05$) for chain pharmacies compared to independent pharmacies. Overall, 4.7% (N=64) of pharmacies who provided prices, offered one of four discounts.

Consequences

Evidence was found of significant price variation in community pharmacies. Higher costs can lead to cost-related non-adherence and consequently adverse health outcomes. There was also evidence that some community pharmacies were not following regulatory guidance on drug pricing transparency. Strengths include the large sample size. Also, conducting outlier checks improved the reliability of the results. While patients may be able to avoid high costs by seeking lower prices, they incur search costs. Policy measures including mandated price transparency, or fixed prescription drug prices could help address these issues.

Funding acknowledgement

This research was funded by the RCSI Research Summer School.

4C.7 Ethnic inequalities in multiple long-term health conditions in the United Kingdom: a systematic review and narrative synthesis

Presenter: Brenda Hayanga

Co-authors: Mai Stafford, Laia Bécares

Institutions: University of Sussex, The Health Foundation

Abstract

Problem

During the COVID-19 pandemic, we witnessed how the virus and the measures adopted to arrest its spread disproportionately impacted people from minoritised ethnic groups. Pre-existing long-term conditions were a key driver of these observed inequalities. Indicative evidence suggests that minoritised ethnic group people have higher risk of developing multiple long-term conditions (MLTCs), and do so earlier than the white majority population. While there is evidence on ethnicity and single conditions and comorbidities, no review has attempted to look across these from a MLTCs perspective. As such, we currently have an incomplete understanding of the extent of ethnic inequalities in the prevalence of MLTCs. A better understanding of ethnic inequalities in MLTCs is needed to inform recovery efforts from the COVID19 pandemic. In this systematic review we aimed to 1) describe the literature that provides evidence of ethnicity and prevalence of MLTCs amongst people living in the UK, and 2) summarise the prevalence estimates of MLTCs across ethnic groups.

Approach

We registered the protocol on PROSPERO (CRD42020218061). Between October and December 2020, we searched ASSIA, Cochrane Library, EMBASE, MEDLINE, PsycINFO, PubMed, ScienceDirect, Scopus, Web of Science, OpenGrey, and reference lists of key studies/reviews. The main outcome was prevalence estimates for MLTCs for at least one minoritised ethnic group, compared to the majority white population. We included studies conducted in the UK reporting on ethnicity and prevalence of MLTCs. To summarise the prevalence estimates of MLTCs across ethnic groups we included only studies of MLTCs that provided estimates adjusted at least for age. In order to address the second objective, we included only studies that counted more than two long-term conditions as they are more likely to give insight into individuals severe disease and therefore, complex medical needs and greater usage of healthcare. Two reviewers, B.H and L.B. screened and extracted data from a random sample of studies (10%). Data were synthesised using narrative synthesis.

Findings

Of the 7949 studies identified, 84 met criteria for inclusion. Of these, seven contributed to the evidence of ethnic inequalities in MLTCs. Five of the seven studies point to higher prevalence of MLTCs in at least one minoritised ethnic group compared to their white counterparts

Consequences

Because the number/types of health conditions varied between studies and some ethnic populations were aggregated, the findings may not accurately reflect the true level of inequality. Thus, our conclusions can only be tentative. Future research should consider key explanatory factors, including those at the macrolevel (e.g. racism, discrimination), as they may play a role in the development of MLTCs in different ethnic groups.

Funding acknowledgement

The Health Foundation

4C.8 Recognition and management of acute functional decline in older people living in care homes: a qualitative interview study with UK care home staff

Presenter: Abigail Moore

Co-authors: Margaret Glogowska, Dan Lasserson, Gail Hayward

Institutions: University of Oxford

Abstract

Problem

Older people living in care homes sometimes experience episodes of acute functional decline. These represent a diagnostic challenge to GPs and can result in antibiotic prescriptions or hospital admissions, though these may not always be the most appropriate management strategies. In this study we aimed to understand how episodes of acute functional decline are recognised, managed and escalated by care home staff.

Approach

This was a qualitative interview study with UK care home staff, including managers, nurses and carers. Staff were recruited through advertisements circulated via email mailing lists, social media and word of mouth. Interviews were conducted over the phone between January 2021 and February 2022. They were semi-structured and based on a flexible topic guide. Thematic analysis was facilitated by NVivo software.

Findings

Care home staff generally felt confident in recognising when residents were less well

than usual, especially if they knew them well. However, they sometimes felt it was difficult to differentiate between an 'off day' and something more significant. Care home staff usually associated an acute functional decline with an underlying infection, particularly in the urine. Other causes they considered included medication side effects, constipation, dehydration and stroke. Initial management steps in the care home included a general assessment to check for possible causes and measuring clinical observations. Many staff mentioned doing a urine dipstick as part of their initial assessment, although some talked about how this was no longer recommended. Some care home staff felt comfortable monitoring residents for a few days themselves. Some would try an intervention like analgesia or encouraging oral fluids in this period. Others preferred escalating directly to a GP or other healthcare professional. Some care home staff reflected that they had increased confidence in their own assessments since the beginning of the pandemic as they had had fewer GP visits and had become more independent.

Consequences

This study has helped us to understand how staff recognise acute functional decline and explore the processes occurring in the care home before external help is sought. Care home staff have described a range of different practices and levels of confidence. We have identified potential areas for additional support and training, including the use of urine dipsticks.

Funding acknowledgement

Oxfordshire Health Services Research Committee

4C.9 Integrating Hepatitis C Care for opioid substitution treatment patients attending general practice: Feasibility, Clinical and Cost Effectiveness

Presenter: Geoff McCombe

Co-authors: Davina Swan1, John S. Lambert1,2, Eileen O'Connor1, Zoe Ward3, Peter Vickerman3, Gordana Avramovic1,2, Des Crowley1,4, Willard Tinago1, Nyashadzaishe Mafikureva3, Walter Cullen1

Institutions: 1University College Dublin, 2Mater Misericordiae University Hospital, Dublin, 3Population Health Sciences, Bristol Medical School, University of Bristol, 4Health Service Executive, Dublin, Ireland

Abstract

Problem

Hepatitis C (HCV) infection is common among people who inject drugs (PWID). It is estimated that 10 million PWID globally and 0.7 million PWID in Europe have been infected with HCV. Despite the high prevalence among PWID, well described barriers mean many are unaware of their infection and few have received treatment for the infection. In Ireland, injecting drug use is the primary risk factor in 80% of cases. Previous research in Dublin found 77% of patients on opioid substitution treatment (OST) in general practices had been screened for HCV, and of those who were HCV antibody-positive, just 35% had received follow-up HCV-RNA testing, 30% had been referred to a hepatology clinic, and only 3% had initiated HCV treatment. The aim of this study was to examine feasibility, acceptability, clinical and cost effectiveness of an integrated model of HCV care for opioid substitution treatment (OST) patients in general practice in Dublin, Ireland.

Approach

A pre-and-post intervention design with an embedded economic analysis was used to establish the feasibility, acceptability, clinical and cost effectiveness of a complex intervention to optimise HCV identification and linkage to HCV treatment among patients prescribed methadone in primary care. The complex intervention comprised General Practitioner (GP) / practice staff education, nurse-led clinical support, and enhanced community-based HCV assessment of patients. General practices in North Dublin were recruited from the professional networks of the research team and from GPs who attended educational sessions.

Findings

Fourteen practices, 135 patients participated. Follow-up data was collected six-months post-intervention on 131(97.0%) patients. With regards to clinical effectiveness, among HCV antibody-positive patients, there was a significant increase in the proportions of who had a liver fibroscan (17/101(16.8%) vs 52/100 (52.0%); p<0.001), had attended hepatology/infectious diseases services (51/101(50.5%) vs 61/100 (61.0%); p=0.002), and initiated treatment (20/101(19.8%) vs 30/100 (30.0%); p=0.004). The mean incremental cost-effectiveness ratio of the intervention was €13,255 per quality adjusted life year gained at current full drug list price (€39,729 per course), which would be cost saving if these costs are reduced by 88%.

Consequences

The complex intervention involving clinical support, access to assessment and practitioner education has the potential to enhance patient care, improving access to assessment and treatment in a cost effective manner. The study findings enhance the scientific understanding of interventions that contribute to health and social gain and can inform national policy and service development. The authors are actively engaged with key stakeholders and policy-makers to ensure that the project contributes to policy and practice.

Funding acknowledgement

The European Commission who funded project through its Third Health Programme (Grant Agreement Number 709844) and Ireland's Health Services Executive.

4D.1 Epidemiology of Multimorbidity in Africa: Findings from community studies in three countries

Presenter: Bhautesh Jani

Co-authors: Alison Price, Isaac Sekitoleko, Modou Jobe, Joseph Mugisha, Amelia Crampin, Andrew Prentice, Janet Seeley, Christopher Bunn, Frances Mair.

Institutions: University of Glasgow, MRC Unit The Gambia, Malawi Epidemiology and Intervention Research Unit, MRC Unit Uganda

Abstract

Problem

Multimorbidity-MM (co-occurrence of ≥2 chronic conditions) is a global health challenge. The majority of evidence in multimorbidity research has come from studies in high-income countries. The incidence and prevalence of chronic conditions in low and middle income countries (LMICs) is rising, however, epidemiology of multimorbidity in LMICs remains relatively unknown.

Approach

The study objective is to understand the prevalence of multimorbidity among adults in three separate community cohorts from Malawi, Uganda, and the Gambia, respectively. The study design involved secondary data analysis of three community survey/cohort studies: Health and Demographic Surveillance Site (HDSS) data

from Malawi, General Population Cohort (GPC) survey data from Uganda, and Kiang West Longitudinal Population Study (KWLPS) data from the Gambia. The study cohorts included adult populations from urban and rural settings across three different African countries. Information on presence of Hypertension, Diabetes and Obesity was available in all three datasets; information on prevalence of hypercholesterolaemia, HIV and asthma were known in two datasets and prevalence of epilepsy was known only from one study. Data analysis included calculation of crude prevalence of multimorbidity-MM (defined as 2 or more chronic conditions), MM prevalence stratified across various demographic sub-groups, and cross-sectional association between presence of MM and demographic/lifestyle factors using regression modelling.

Findings

The mean age for participants in HDSS data-Malawi (N=30574) was 35 years, with 61.8% females. The prevalence of MM was 11.8% (2389 participants out of 20299), however chronic condition prevalence data was missing for 33.6% of participants. The mean age for participants in GPC data-Uganda (N=7833) was 34 years, with 56.2% females. The prevalence of MM was 7.2% (563 participants out of 7829). The mean age for participants in KWLPS data-Gambia (N=7917) was 38 years, with 60% females. The prevalence of MM was 4.1% (176 participants out of 4131), with chronic condition prevalence data missing in 46% of participants. Being female and from older age group was associated with higher prevalence of MM. This work is still in progress, and we will be able to present the full results at the time of the conference.

Consequences

Further research is needed to study MM epidemiology in LMIC countries, particularly in Africa. This can be only strengthened by robust data collection for a wide variety of chronic conditions from primary care populations in these countries.

Funding acknowledgement

This work was funded by the MRC Grant MR/T037849/1

4D.2 Identification of familial hypercholesterolaemia in primary care in a developing country: is it feasible?

Presenter: Hasidah Abdul-Hamid

Co-authors: Hasidah Abdul-Hamid1,2, Joe Kai1, Anis Safura Ramli3, Hapizah Mohd-Nawawi3, N. Qureshi1

Institutions: 1Primary Care Stratified Medicine (PRISM) Research Group, School of Medicine, University of Nottingham, Nottingham, United Kingdom 2Department of Primary Care Medicine, Faculty of Medicine, Universiti Teknologi MARA, Selangor, Malaysia 3Institute of Pathology, Laboratory and Forensic Medicine (I-PPerForM), Universiti Teknologi MARA, Selangor, Malaysia

Abstract

Problem

Familial hypercholesterolaemia (FH) is an autosomal dominant genetic disorder, causing elevated LDL-c from birth. If left untreated, FH leads to premature heart disease and early death. However, most people with FH remain undiagnosed and thus fail to benefit from highly effective and low-cost treatment. The aim of this study is to investigate the feasibility of identifying FH in Malaysian primary care.

Approach

Consecutive patients attending two primary care clinics in Malaysia were recruited into the study. Relevant information was obtained from the patients; including their socio-demographic and significant personal and family medical history. Patients' lipid profiles

were obtained from the clinic medical records. Patients' risk of FH were calculated using three FH case-finding criteria (Simon Broome (SB), Dutch Lipid Clinic Network (DLCN) and FAMCAT). Patients identified as high risk of FH on either of these criteria were then referred to the Specialist Lipid Clinic for further management and genetic testing.

Findings

A total of 1,191 patients were approached during the study period, just over half (637 patients) agreed to participate. Only 619 patients met the eligibility criteria. 65 (10.5%) patients had high risk of FH according to SB, DLCN and/or FAMCAT, and required referral to Lipid Specialist Clinic. However, only 52 (8.4%) patients agreed to be referred. 26 of the patients were eventually assessed in Lipid Specialist Clinic and underwent genetic testing. A total of 11 (1.78%) patients had positive mutation in the genetic testing. Among the 619 patients recruited, the mean age was 58.09 (SD±12.44), male 310 (50.08%), majority were of Malay ethnicity (542, 87.56%), married (548, 88.53%), and had tertiary education (297, 47.98%). The mean lipid parameters for these patients (in mmol/L) were: TC: 5.34 (SD±1.29); LDL-C: 3.27 (SD±1.16); triglycerides: 1.66 (SD±1.10); and HDL-C: 1.34 (SD±0.34).

Consequences

Identification of FH is feasible in primary care in a developing country such as Malaysia. Utilising FH clinical diagnostic criteria such as Simon Broome (SB), Dutch Lipid Clinic Network (DLCN) and FAMCAT offers a cheaper and more convenient alternative to genetic diagnosis.

Funding acknowledgement

This study was funded by Universiti Teknologi MARA Malaysia, grants no. 600-IRMI 5/3/LESTARI (047/2018) and 600-IRMI/DANA 5/3/BESTARI (127/2018).

4D.3 Supported self-management for all with musculoskeletal pain: an inclusive approach to intervention development.

Presenter: Emma Healey

Co-authors: Emma Healey1, Nadia Corp1, Opeyemi Babatunde1, Bernadette Bartlam1, Martyn Lewis1, Gill Rowlands2, Noureen Shivji1, Danielle van der Windt1, Joanne Protheroe1

Institutions: 1. School of Medicine, Keele University, UK, 2. Population Health Sciences Institute, Newcastle University, UK

Abstract

Problem

1. Musculoskeletal (MSK) conditions are a major cause of ill-health and disability worldwide, more prevalent in more deprived groups, with substantial impacts on quality of life and healthcare resource use. 2. The mainstay of UK National Health Service treatment for MSK conditions is supported self-management. Evidence for effectiveness is limited because intervention development has overlooked low health literacy (HL) (affecting 43-61% of the English population). 3. Patients with low HL have higher prevalence of osteoarthritis, lower physical function, higher pain intensity and lower pain-related self-efficacy including difficulties in managing medication, compared to patients with adequate HL, often struggling to understand key messages of self-management.

Approach

Mixed methods concurrent-sequential study design with four work-packages (WPs). WP1: secondary analysis of existing data to identify potential targets (mediators, moderators and subgroups) for intervention. WP2: evidence synthesis to assess likely effective components of supported self-management

interventions taking into account varying levels of HL. WP3: views of community members and health care professionals (HCPs) on essential components. WP4: findings from WPs 1,2,3 synthesised to produce evidence tables: online modified Delphi approach with a stakeholder group of HCPs and third-sector collaborators ranking importance of evidence presented to reach consensus on most important components of a logic model.

Findings

Eight dimensions to the logic model were identified, each with their own domains: the problem, inputs, determinants, training and education (HCPs), intervention components, delivery modes, outputs and health outcomes. Determinants identified include: self-efficacy, illness perceptions, and an understanding of the MSK condition. Components identified included information in diverse formats (e.g. audio, video and written materials) offered at specific times; action planning and goal setting; visual demonstrations of exercises. Support should be multi-professional using a combination of delivery modes including verbal, written and audio-visual.

Consequences

This research has developed a patient-centred model for a multi-disciplinary, multi-modal approach to supported self-management for patients with MSK pain and varying levels of health literacy. The model is evidence-based and acceptable to both patients and HCPs, with potential for significant impact on the management of MSK pain and for improving patient health outcomes. Further work is needed to establish its efficacy.

Funding acknowledgement

This project was funded by Versus Arthritis (ref: 21952). EH is part funded by the National Institute for Health Research (NIHR) Applied Research Collaborations (ARC) West Midlands. The views expressed in this paper are those of the author(s) and not nece

4D.4 Exploring the impact of comorbidities on cancer stage at diagnosis and 30 day mortality; a retrospective cohort study

Presenter: Gary Abel

Co-authors: Luke Mounce, Sarah Price, David Shotter, Jose Valderas, Sam Merriel, Sarah Moore, Willie Hamilton, Gary Abel

Institutions: University of Exeter, National University of Singapore

Abstract

Problem

NHS England has prioritised increasing the proportion of patients diagnosed early with cancer as part of the NHS Long Term Plan. However, this may be challenging, as the rising prevalence of chronic conditions may complicate the cancer diagnostic process. Here we investigate whether patients with pre-existing conditions are more likely to be diagnosed with late-stage cancer or die within 30 days of cancer diagnoses.

Approach

We used linked primary care (Clinical Practice Research Datalink), secondary care (Hospital Episode Statistics) and cancer registration (NCRAS) data. Patients diagnosed with any of 21 stage-able common cancers during 2012-2016 were included. A count of comorbidities was based on medical records for conditions included in the quality and outcome framework. We used logistic regression to investigate which patient groups (comorbidities, age, gender, smoking history and deprivation level) were more likely to be diagnosed at late-stage or die within 30 days of diagnosis.

Findings

119,667 patients were included. Preliminary results suggest that 8.7% (n=10,408) of patients died within 30 days of their diagnosis and 50.5% (48,060/95,149) of patients were diagnosed with late-stage cancer. There was evidence that stage and 30-day mortality were independently associated with age, gender, deprivation, and the presence of comorbidities ($p<0.001$), with male, older, and more deprived patients more likely to be diagnosed at late-stage or die within 30 days of diagnosis. Patients with several comorbidities were less likely to be diagnosed at late-stage or die within 30 days. For individual cancers there was no evidence that co-morbidities were associated with late-stage and only for X and Y cancers is there any evidence of detriment in 30-day mortality.

Consequences

Although some patient groups were more likely to be diagnosed with late-stage cancer and die within 30 days, patients with multi-morbidity were more likely to be diagnosed early. Potentially, regular monitoring of a chronic condition may provide opportunities to detect cancer earlier. As multi-morbidity has previously been linked to poorer survival chances, it may be that specific comorbidity types or morbidity burden better explain the relationship between multi-morbidity and cancer outcomes.

Funding acknowledgement

This work was funded by a NIHR Programme Grant for Applied Research (ref NIHR201070).

4D.5 Enhancing the management of Long COVID in general practice: a scoping review.

Presenter: John Broughan

Co-authors: Aimee Brennan (1st author), John Broughan, Geoff McCombe, John Brennan, Claire Collins, Ronan Fawsitt, Joe Gallagher, Allys Guérandel, Brendan O'Kelly, Diarmuid Quinlan, John S Lambert, Walter Cullen

Institutions: 1. School of Medicine, University College Dublin, 2. Royal College of Physicians of Ireland, Dublin, 3. Irish College of General Practitioners, Dublin, Ireland., 4. Castle Gardens Surgery, Kilkenny., 5. Ireland East Hospital Group, Dublin., 6. Department of Psychiatry and Mental Health Research, St Vincent's University Hospital, Dublin., 7. Mater Misericordiae University Hospital, Dublin.

Abstract

Problem

Long COVID is a multifaceted condition that has impacted a considerable proportion of those with acute-COVID-19. Affected patients often have complex care needs requiring holistic and multidisciplinary care, the kind routinely provided in general practice. However, there is limited evidence regarding GP interventions. This study aimed to address this issue by conducting a scoping review of literature on GP management of Long COVID.

Approach

Arksey and O'Malley's six-stage scoping review framework with recommendations by Levac et al. was used. PubMed, Google Scholar, the Cochrane Library, SCOPUS, and Google searches were conducted to identify relevant peer-reviewed/grey literature, and the study selection process was conducted according to the PRISMA Extension for Scoping Reviews guidelines. Braun and Clarke's 'Thematic Analysis' approach was used to interpret data.

Findings

Nineteen of 972 identified papers were selected for review. These included peer-reviewed articles and grey literature spanning a wide range of countries. Six themes were identified regarding GP management of Long COVID, these being: (i) GP uncertainty, (ii) Listening and empathy, (iii) Assessment and monitoring of symptoms, (iv) Coordinating access to appropriate services, (v) Facilitating provision of continual and integrated multi-disciplinary care and (vi) Need to facilitate psychological support.

Consequences

The findings show that GPs can and have played a key role in the management of Long COVID, and that patient care can be improved through better understanding of patient experiences, standardised approaches for symptom identification/treatment, and facilitation of access to multidisciplinary specialist services when needed. Future research evaluating focused GP interventions is needed.

Funding acknowledgement

This study was funded by Ireland's Health Research Board (reference number: COV19-2020-123). The study contributes to a wider body of work being produced to attenuate the adverse effects of the COVID-19 pandemic on population health in Ireland (The North-

4D.6 What is the prevalence, trajectory, and clinical implications of frailty in people with COPD?

Presenter: Peter Hanlon

Co-authors: Peter Hanlon, Xuetong Guo, Eveline McGhee, Jim Lewsey, David McAllister, Frances S Mair

Institutions: University of Glasgow

Abstract

Problem

Frailty is common in people with COPD. Assessing prevalence is challenging given the large number of frailty measures in the literature. Frailty is also dynamic and may change within individuals. Furthermore, previous systematic reviews have not assessed the clinical implications of frailty in COPD including associations with clinical outcomes. This systematic review aims to assess the prevalence and trajectory of frailty in people with COPD and summarise associations with adverse health outcomes.

Approach

Three databases searched (Medline, Embase and Web of Science) from 2001 to September 2021, supplemented by forward citation searching and hand-searching reference lists. Eligibility criteria were observational studies of frailty (using any measure) in adults (>18 years) with COPD, any setting (community, outpatient, inpatient, rehabilitation, residential care) assessing frailty prevalence, trajectories, or association with health-related outcomes. Study quality was assessed using Newcastle-Ottawa scale. Screening, quality assessment and data extraction performed independently by two reviewers. We synthesized results using narrative synthesis and, where heterogeneity allowed, random-effects meta-analyses.

Findings

We identified 53 eligible studies using 11 frailty measures. Most common were frailty phenotype (32/53), frailty index (5/53) and Kihon checklist (4/53). Prevalence varied between frailty definitions, setting, and age of study population. Using the frailty phenotype, median prevalence was 12.5% in community studies. Prevalence was higher using other measures, and in inpatients, pulmonary rehabilitation and residential care settings. Frailty in COPD is dynamic, with airflow limitation, dyspnoea, and exacerbation frequency associated with worsening. Improvements in frailty status were observed following pulmonary rehabilitation. Frailty was associated with mortality (5/7 studies), COPD exacerbation (7/11), and hospital admission (3/4). Using frailty phenotype, pooled hazard ratio for mortality was 1.80 (95% CI 1.24-2.63) and pooled incident rate ratios were 1.42 (0.94-2.17) for COPD exacerbation and 1.46 (1.10-1.92) for hospitalisation. Frailty was cross-sectionally associated with airflow limitation (11/14), dyspnoea (15/16), COPD severity scores (10/12), poorer QOL (3/4) and disability (1/1).

Consequences

Frailty is a common and dynamic state in COPD, associated with a range of adverse outcomes. However, frailty also appears responsive to intervention. A nuanced understanding of frailty identification, prognosis, and reversibility is required to allow appropriate individualization of COPD care.

Funding acknowledgement

Medical Research Council (Peter Hanlon, MR/S021949/1)

4D.7 Self-monitoring of blood pressure following a stroke or transient ischaemic attack (TASMIN5S): a randomised controlled trial cut short by covid-19.

Presenter: Richard McManus

Co-authors: A Smith, E Temple, J Allen, R Doogue, G Ford, L Glynn, B Guthrie, P Hall, L Hinton, R Hobbs, J Mant, B McKinstry, S Mort, T Rai, C Rice, C Roman, A Stoddart, L Tarassenko, J Thomson, C Velardo, L Yardley, LM Yu

Institutions: Universities of Oxford, Limerick, Edinburgh, Cambridge and Bristol.

Abstract

Problem

Raised blood pressure after stroke is a significant risk factor for secondary stroke and other cardiovascular events. Digital interventions can support people to monitor their own blood pressure at home, share readings with the healthcare team, and facilitate appropriate medication change. However, it is not known how best to optimise self-management digital interventions for stroke or transient ischaemic attack (TIA) patients, who may experience a range of communication and physical impairments.

Approach

An integrated approach was adopted to develop an optimal digital intervention to support stroke/TIA patients to manage their high blood pressure in Primary Care. This drew on evidence, theory and the Person-Based Approach. The intervention was tested in an unmasked randomised controlled trial comparing a self-monitoring of blood pressure intervention versus usual care for the management of hypertension following stroke or TIA. People with a history of previous

stroke or TIA from 12 general practices in the UK were randomised (1:1) intervention to control. Patients in the intervention group recorded self-monitored blood pressure via an app developed specifically for use by people with stroke. The primary outcome was the difference in clinic measured systolic blood pressure at 12 months from randomisation but was not available due to early termination of the study following suspension in the first lockdown. Instead, as well as baseline pre-randomised data, routinely recorded systolic and diastolic blood pressure were extracted from electronic patient records for the time period 1/11/2018-1/12/2020 aiming to capture both pre- and post-randomisation data. Trial registration ICTRN 57946500.

Findings

The trial was stopped early by the funders due to the COVID-19 pandemic despite study redesign for remote delivery. Of 95 people screened for eligibility, 55 were randomised. Mean baseline trial blood pressure was 146/82 mmHg (self-monitoring, n=27) and 146/80 mmHg (control, n=28). Pre- and post-randomisation routinely recorded blood pressures were available from 39 participants: 143/78 mmHg (pre) and 131/75 mmHg (post)(n=20, self-monitoring) and 145/79 mmHg and 134/73 mmHg (n=19, usual care) respectively.

Consequences

A complex digital health intervention was created for stroke and TIA patients. Recruitment of people with stroke/TIA to a trial comparing this digital intervention to usual care was possible prior to the pandemic. Routinely recorded blood pressure dropped in both groups. Digital interventions including self-monitoring of blood pressure are feasible for people with stroke or TIA and should be further evaluated in future trials.

Funding acknowledgement

This work was funded by the Stroke Association and British Heart Foundation. Analysis and writing up funded by NIHR Oxford and Thames Valley Applied Research Collaborative.

4D.8 Multimorbidity in Latin American migrants of Lambeth – a retrospective cohort study using electronic health records

Presenter: Mark Ashworth

Co-authors: Mark Ashworth

Institutions: King's College London

Abstract

Problem

The Latin American population is one of the UK’s fastest growing migrant populations. Census data from 2011 recorded around 113,000 first-generation Latin American migrants in the UK, of whom almost 10,000 lived in the borough of Lambeth. Little is known about the chronic health needs of Latin Americans, who tend to work in low-skilled employment despite high levels of educational attainment in Latin America. Understanding this population better may help to design health services to accommodate them. We aimed to determine the prevalence of long-term conditions (LTCs) in Latin Americans residing in the UK, and whether they are healthier than other ethnic groups in Lambeth. We also aimed to assess how being a non-English speaker is associated with LTC incidence.

Approach

This study used Lambeth DataNet, an anonymised 16-year cohort of around 850,000 adult patients derived from electronic primary care records in a primarily young, multi-ethnic and deprived area of south London.Latin Americans were identified

by clinical codes representing country of origin, self-reported ethnicity, and main language spoken, and validated against census data. We used clinical codes for 32 key LTCs in urban populations. We estimated the rate of acquisition of LTCs through the life course using survival analysis. Cox regression with random effects estimated how domains of neighbourhood-level deprivation and being a non-English speaker affected the development of multiple LTCs.

Findings

We identified 26,289 Latin Americans in this cohort, approximately 3% of the GP-registered population of Lambeth. Compared to 2011 census data, approximately one-fifth of Latin Americans are not registered with a GP. Latin Americans tended to be older than other Lambeth residents (median age 32 at registration, vs 30 for non-Latin Americans). 16% of Latin Americans recorded English as their main spoken language , compared to 75% of non-Latin Americans. Interim findings suggest that the hazard of most LTCs was lower in Latin Americans than non-Latin Americans, particularly chronic obstructive pulmonary disease (adjusted hazard ratio (HR) 0.35 compared to white ethnicities, 95% CI 0.27-0.45) and alcohol dependence (adjusted HR 0.37, 0-32-0.43). Rates of HIV were 25% higher than White ethnicities (adjusted HR 1.27, 1.19-1.36) - a similar rate to Black ethnic groups. After adjustment for confounders, being a non-English speaker was associated with similar or reduced rates of LTC diagnoses.

Consequences

We used routinely-collected clinical data to identify an migrant group not recognised by the 2011 Census. Around one-fifth of Latin Americans may not be registered with a GP; the majority do not speak English fluently. This may affect access to health care. There is a substantial burden of HIV in this population. These data will help to inform public health decisions to promote health to this migrant group.

4D.9 Preliminary process evaluation findings for the Fracture in the Elderly Multidisciplinary Rehabilitation - Phase III (FEMuR III) randomised controlled trial (RCT), a community-based Rehabilitation package following hip fracture.

Presenter: Penny Ralph

Co-authors: Nefyn Williams, Susanna Dodd, Susan Dobson, Ben Hardwick, Dannii Clayton, Rhiannon Tudor Edwards, Joanna Charles, Phillipa Logan, Monica Busse, Ruth Lewis, Toby Smith, Catherine Sackley, Val Morrison, Andrew Lemmey, Patricia Masterson-Algar, Lola Howard,

Institutions: University of Liverpool, University of Bangor, University of Nottingham, Betsi Cadwaladr University Health Board, Norfolk Community and Health Care Trust, Cwm Taf University Health Board, Nottingham City Care, Mid Cheshire Health Trust, University Hospitals of Derby and Burton NHS Foundation Trust, East Kent Hospitals University NHS Foundation Trust

Abstract

Problem

Hip fracture is a common but debilitating injury which can have physical, psychological and social implications for patients, whilst being costly for health and social care services. Rehabilitation potentially improves recovery and independence. FEMuR III is a pragmatic RCT examining the effectiveness of an enhanced rehabilitation programme compared with usual care following surgical repair. Process evaluation was undertaken to identify factors which impacted on the study's implementation, context and outcomes.

Approach

FEMuR III utilises a mixed-methods approach using quantitative, standardised outcome measures taken from all sites at baseline, 17 and 52 weeks. The process evaluation focuses on qualitative data exploring context, implementation, mechanisms and outcomes. Participants are older adults (aged ≥60) with mental capacity, recruited on orthopaedic wards recovering from surgical treatment following hip fracture. The enhanced rehabilitation programme incorporated a workbook, goal-setting diary and 6 additional therapy sessions compared with usual care, delivered in the community following hospital discharge following surgical repair. These preliminary findings are primarily based on semi-structured interviews with 32 patients (19 usual; 13 enhanced) and 9 therapists.

Findings

Covid-19 has impacted on several aspects of the study, including access and recruitment of patients and carers, staff redeployment/absence, site stops, and variations in intervention delivery and application. Patients reported access to social and physical spaces curtailed due to lockdown and/ or shielding. Themes relating to the enhanced intervention from both therapists and patients include the importance of goal-setting, of being patient-centred, and regularity and reassurance as motivating factors that supported engagement. Patients viewed extra contact and the opportunity to ask questions and gain reassurance as very important, whilst therapists suggested the opportunity to work more closely to professional values, time with the patient and building therapeutic relations as key. Written materials were seen as less important by patients, however therapists found them particularly useful to help structure support especially when undertaking the intervention over the phone. Patients who received usual care indicated a variable picture; several received very limited or no care when getting home. Usual care themes include frustration and uncertainty around progress, lack of follow up and communication, and a reticence to approach services for being seen as 'burdensome'.

Consequences

The Covid-19 pandemic has hugely impacted the study, particularly around access to patients, recruitment, staff availability and study momentum, whilst patients have endeavoured to set goals for rehabilitation in a shrinking social and physical environment. Despite this, the qualitative data indicates enhanced intervention patients consistently value and feel they have benefitted from the extra support provided. Usual care patients perceived outcomes have been mixed. Whilst there has been variation in the application of the enhanced intervention, partly due to contextual pressures such as covid19, some variation is inevitable as the intervention was tailored in accordance with patient-directed goals.

Funding acknowledgement

National Institute for Health Research (NIHR)

4E.1 GP-MATE - A co-production approach to improving primary care patient safety after older people are discharged from hospital

Presenter: Rachel Spencer

Co-authors:

Institutions: Unit of Academic Primary Care, University of Warwick

Abstract

Problem

Hospital discharge is a risky time for older people, over 5 million patients aged ≥75 are discharged from English hospitals each year. Our previous primary care research shows that one in thirteen over 75's are harmed as a result of how their post-discharge primary

care is conducted (over 400,000 patients in England each year).

Approach

Older patients and their carers have a key role to play in preventing these harms in collaboration with their general practices. Over the next 4 years the NIHR funded General Practice Management After Transition Events (GP-MATE) study aims to address the lack of material to help primary care professionals help older patients after discharge. We are taking a co-produced approach with patients and primary care professionals to creating a new communication tool for patients and an educational learning set for professionals. The study uses a method called 'Experienced based co-design' to enable patients to be heavily involved in creating the tool. In this method, a video of patient experiences, created specifically for the project, is used as an immersive visual experience to break down barriers between patients/carers and healthcare staff in order to trigger creative discussions. We will assemble a variety of possible templates for what our tool will look like based on available literature in order to kick-start these discussions. Three groups of patients and healthcare providers across the country will meet repeatedly to design the tool iteratively. In the third and fourth year we will pilot our tool locally in ten West Midlands practices to optimize its use in general practice.

Findings

This project is just beginning. Our content will focus on a description of our novel study methods and invite comment/discussion on these. SAPC member awareness of the research being conducted and the potential to develop wider project collaborations in co-production is our target for this presentation.By June we will be able to present early results from our unique analyses of practices' systems for post-discharge care and early results from patient experiences of discharge interviews which will be used to create out 'trigger film'. Possible tool templates which we will take to our co-production teams will be presented.

Consequences

Patients/carers have an important role to play in preventing errors and harms which occur after discharge from hospital. We want to help empower older patients (and their carers) to take an active role in their general practice care after coming home from hospital and anticipate that the tool we will create will help them to do this. We also want to make sure that our tool is feasible for use in routine general practice care and that it addresses the needs of practice staff as well as those of patients and carers.

Funding acknowledgement

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4E.2 A systematic review of the effectiveness of link workers providing social prescribing on health outcomes and costs for adults in primary care and community settings

Presenter: Bridget Kiely

Co-authors: Aisling Croke, Muireann O'Shea, Fiona Boland, Deirdre Connolly, Eamon O' Shea, Susan Smith

Institutions: Royal College of Surgeons Ireland, Trinity College Dublin, National University of Ireland, Galway, Trinity College Dublin

Abstract

Problem

Social prescribing link workers are being rolled out in many countries often in areas of deprivation. They are recommended for people with mild mental health problems and multimorbidity. Despite widespread use in the UK, evidence for link workers' effectiveness for the general population and specific subgroups remains limited. Previous reviews looked at U.K. based interventions or included a broad range of studies including those with uncontrolled designs, potentially biasing results. The field has also expanded since previous reviews internationally. This systematic review aimed to examine the effectiveness and costs of link workers in improving health outcomes for people in primary care and community settings with a particular focus on individuals living in deprived areas and with multimorbidity.

Approach

We searched databases of published literature and grey literature from inception to July 2021 for randomised and non-randomised trials examining use of link workers or equivalent for community dwelling adults compared to usual care. We conducted a worldwide search for link worker social prescribing interventions, rather than focusing on a specific geographic location and included equivalent roles across all healthcare systems. Primary outcomes for the review were health related quality of life (HRQoL) and mental health. Secondary outcomes included healthcare utilisation and costs. Two review authors independently screened abstracts, selected studies, extracted data, evaluated study quality and judged certainty of the evidence. Results were synthesised narratively.

Findings

Seven studies including 3,341 participants were included. Two studies specifically targeted people with multimorbidity and three targeted people living in areas of deprivation. Four studies reported HRQoL outcomes; none reported a positive impact. Four studies included mental health outcomes; three reported no impact. There was no evidence of reductions in primary care usage, but two studies in the US found reduced hospitalisations for people with multimorbidity and an increase in patients reporting high quality care. The intervention was intensive over six months and showed positive results in terms of cost savings, but was trialled in a different health system. No cost effectiveness or cost utility analysis was identified. The certainty of the evidence was low or very low.

Consequences

This is the first systematic review that specifically examined the evidence for social prescribing link workers for people with multimorbidity and in areas of deprivation, which overall was limited. Going forward consideration should be given to interventions that are more intensive for these groups. The widespread policy of rolling out social prescribing projects regardless of the lack of certainty around cost effectiveness makes it challenging for researchers to address the evidence gap, especially in identifying suitable controls. More uncontrolled before after studies will not advance the evidence base and high quality controlled trials of social prescribing link worker interventions are required.

Funding acknowledgement

Collaborative Doctoral Award in Multimorbidity funded by the Health Research Board, Ireland

4E.3 Trauma-informed care in UK: where are we? A qualitative study of health policies and professional perspectives

Presenter: Elizabeth Emsley

Co-authors: Elizabeth Emsley, David Martin, Natalia V Lewis

Institutions: Centre for Academic Primary Care, Bristol

Abstract

Problem

People can experience trauma as a result of violence, abuse, neglect, loss and other emotionally harmful experiences. Mental health consequences of such experiences are common in the general population, with reviews finding a lifetime prevalence of post-traumatic stress disorder (PTSD) of 14-44% in primary care patients. Awareness of patient re-traumatisation in healthcare settings has developed alongside recognition that staff may themselves both have experienced trauma and be at risk of vicarious trauma. The concept of a trauma-informed (TI) approach has gained international interest over the last 20 years. TI approaches recognise the impact of psychological trauma on patients and staff and establish organisational change, promoting recovery and preventing re-traumatisation in healthcare services. TI approaches are represented in major national UK health policy. However, our systematic review of TI approaches in primary and community mental healthcare identified limited evidence for its effectiveness in the UK, despite endorsement in various policies. Aims: This study aimed to address this evidence-policy gap by answering the following questions:

- How are TI approaches represented in UK policy?
- How are TI approaches understood and implemented in the UK?
- Why are TI approaches represented and implemented in this way?

Approach

Qualitative study comprised of 1) a document analysis of UK health policies using the READ approach 2) semi-structured interviews with key informants with direct experience of developing and implementing TI approaches. Qualitative analysis was undertaken according to the framework method and READ approach.

Findings

We analysed 25 documents and interviewed 11 professionals from healthcare organisations and local authorities. Policies at the level of healthcare organisations, local authorities, and Scottish and Welsh governments recommended TI approaches. However, there was no England-wide strategy or leadership. Across the UK, there is inconsistency in the terminology and frameworks used. Despite growing endorsement of TI approaches in policies, positive statements were not supported by legislation, funding, or resource allocation. Documents revealed differing understandings of TI approaches between geographical areas and across services, with disconnected and piecemeal implementation. Interview participants reflected on a lack of: 1. high-level strategy and leadership, 2. adequate funding for evaluation, 3. shared understanding of TI approaches, 4. knowledge about existing frameworks and evidence base. Factors viewed as affecting the implementation of TI approaches included: leadership support, bottom-up and top-down development, presence of systemic thinking, supportive organisational culture, adequate resource allocation, competing priorities, impact of the COVID-19 pandemic. Participants had conflicting views on the future of TI approaches and called for

coordination between organisations and regions.

Consequences

A coordinated, centralised national strategy on TI approaches in health systems, improved funding for evaluation, and education through professional networks about evidence-based TI health systems can increase value and reduce waste in research and implementation of TI approaches in the UK.

4E.4 Clinical Advice and Guidance services in the NHS in England – what are primary care staff and commissioner perspectives on uptake, outcomes, barriers and opportunities?

Presenter: Alison Janes

Co-authors: Dr Iain Loughran, Dr Joanne Smith, Dr Shona Haining

Institutions: NECS

Abstract

Problem

Advice and guidance (A&G) services are central to the vision outlined in the NHS Long Term Plan of 'one click away' specialist advice for general practitioners; use of A&G also formed part of the pandemic response. There was limited evidence as to how A&G had been implemented across England from a primary care perspective, and in the pandemic context. This evaluation aimed to explore primary care and commissioner perspectives on A&G services and associated outcomes, barriers and opportunities, to support development of A&G in a referral optimisation context.

Approach

A mixed methods approach was taken. An online survey was carried out between March-April 2021 to explore primary care staff usage and experience of A&G. Data from 390 complete responses were analysed using descriptive statistics and thematic analysis. Telephone/video interviews were conducted between April-June 2021 with staff working in primary care and commissioning. Interviews were conducted with 34 people purposively sampled from localities across the 7 English regions, and data were analysed thematically.

Findings

On average, 85% of survey respondents agreed the A&G specialties they had used provided a useful service. Satisfaction with the process, response quality, and turnaround time for frequently used services was high. However 34% rated the interoperability of the A&G system with the patient's primary care record as poor/very poor. Barriers to use included: variable/slow response times; availability of A&G services; clunky systems and processes; time and workload pressures and poor quality of responses. Factors which enable/encourage A&G use included: reliable, timely responses; easy-to-use systems; good quality responses; practical support and resource; and trust in the process. Thematic analysis of interview transcripts resulted in identification of five core themes: The system: "Keep it simple"; Access to elective care; Time and resource challenges; Building understanding and collaboration; and Maximising the benefits of A&G.

Consequences

To support primary care staff to use A&G, available A&G services; reliable, timely responses; good quality responses; an intuitive integrated system; practical support and resource; and strong local relationships are important. For decision-makers to implement A&G, it is important to simplify and integrate IT; define A&G in the context of

elective care access; plan and resource A&G; build relationships and opportunities to disseminate learning; and make use of reliable comparable data.Based on evaluation results, 46 recommendations were identified across nine areas: Service standards and governance; Systems; Elective care pathways; Widening access; Resourcing; Staff engagement; Patient involvement; Outcome monitoring; and Further evaluation. Results were presented to national stakeholders and this evidence is informing the ongoing development of specialist advice within the referral optimisation agenda.

Funding acknowledgement

This evaluation was delivered as part of work commissioned by the NHS England & Improvement National Elective Care Recovery & Transformation Team.

4E.5 System-wide approach to improving hypertension in Primary Care

Presenter: Aseem Mishra

Co-authors: Philip S Lewis, Adam Firth

Institutions: Stockport NHS Foundation Trust, Bracondale Medical Practice

Abstract

Problem

Globally, hypertension is the greatest risk factor for attributable deaths, accounting for 20% of all deaths in 2019. In the UK, more than 1 in 4 have hypertension, leading to significant morbidity, mortality and estimated to cost the NHS more than £2 billion annually, excluding societal costs. The UK's poorest are 30% more likely to have hypertension than the richest. Hypertension increases the risk of mortality from COVID-19, contributing to the excess mortality observed with the pandemic. Epidemiological studies within UK demonstrate up to 37% of known hypertensives remain uncontrolled reflecting the enduring gap and missed opportunities. Our goal was to design and implement a novel remote BP monitoring pathway, that could be swiftly and cost-effectively implemented within multiple practices by leveraging pre-existing, widely available technologies.

Approach

We prospectively utilised a combined system (Non-adoption, Scale-up, Sustainability and Spread Framework) and behavioural (COM-B) approaches to investigate the problem at individual, group and organisational levels, informing intervention and implementation. Searches were used to identify sub-optimally controlled hypertensive patients while providing free BP monitors to those without one. A digital pathway utilised accuRx (London) enabling patients to submit multiple BP readings over a seven-day period. An average BP is autonomously calculated and returned, with one-click coding into EMIS. Paper options avoid digital exclusion. A suite of EMIS (Leeds) templates, protocols and alerts were developed to support the ongoing identification and management of patients, integrating into practice workflows.

Findings

For practices to leverage the benefits of Home Blood Pressure Monitoring (HBPM), they must be confident in the accuracy of the reported readings, while patients must be assured of their capacity to take accurate readings. The more intensive the education and training prior to starting HBPM, the more likely engagement and control. Collaborating with care coordinators (CC) has allowed us to deliver this level of education while minimising individual practice burdens. Providing HBPM training to newly appointed CCs has helped embed it within their work, whilst collaborating with the CCG has enabled a pilot of group consultations for uncontrolled hypertensive patients. Final evaluation will involve a detailed case study of implementation, barriers and facilitators and a mixed-methods evaluation of experiences,

clinical and interpersonal effectiveness, and impact with an emphasis on inequalities.

Consequences

Improved BP control may lead to an 80% reduction in stroke incidence, indicating significant individual and population benefits. While HBPM has been shown to be accurate and effective in clinical trials, there remains a paucity of knowledge surrounding real-world implementation. With over 30% of hypertensive patients already owning a BP monitor, a lack of a systematic approach limits its benefits. Effective implementation of HBPM will be beneficial in facilitating not only the recovery from COVID-19 but also moving towards better pro-active, personalised, and preventative care.

Funding acknowledgement

We would like to acknowledge NHS England and NHS Digital in initiating the national pilot, including providing free BP monitors, in addition to funding for the position of Clinical Lead for the Stockport BPM@Home Trailblazer. We would also like to acknowl

4E.6 What is the contribution of Community First Responders to rural Emergency Medical Service provision in the UK?

Presenter: Vanessa Botan

Co-authors: Zahid Asghar, Elise Rowan, Murray D. Smith, Gupteswar Patel, Viet-Hai Phung, Ian Trueman, Robert Spaight, Amanda Brewster, Pauline Mountain, Roderick Orner, A. Niroshan Siriwardena

Institutions: University of Lincoln, East Midlands Ambulance Service NHS Trust

Abstract

Problem

Community First Responders (CFRs) are volunteers dispatched by Emergency Medical Services (EMS) to potentially life-threatening emergencies to provide care until the ambulance staff arrive. Previous qualitative research described CFRs' role, perceptions, and motivations, but quantitative evidence on their contribution to rural healthcare provision is lacking. We aimed to investigate the number, rate, types and location of calls and characteristics of patients attended.

Approach

We used a retrospective observational design analysing routine data from electronic clinical records from six of ten ambulance services in England during 2019 calendar year. Descriptive statistics were used to compare CFR first attendances in rural or urban areas with those of ambulance staff. A multivariable logistic regression model was used to identify the main predictors of CFR attendance whilst accounting for confounding effects.

Findings

The data included 4.5 million incidents over one year. CFRs attended first in a significantly higher proportion of incidents located in rural areas rather than urban areas (3.90% vs 1.48 %, $p<0.05$). The main predictors of CFR presence were the rural location of the incident (Odds Ratio [OR] 2.05, 95% Confidence Interval [CI] 1.99-2.11, $p<0.001$), conditions including cardiorespiratory (OR 9.20, 95%CI 5.08-16.64, p<0,001) or neurological/endocrine (OR 9.26, 95%CI 5.12-16.77, $p<0.001$) and call categories 1 (OR 5.19, 95%CI 3.86-6.99, $p<0.001$) and 2 (OR 4.44, 95%CI 3.31-5.96 $p<0.001$). Patients attended first by CFRs were less likely to be from minority ethnic backgrounds, from more deprived areas, or younger than 39 years.

Consequences

CFRs contribute to EMS delivery particularly in rural areas and especially for more urgent calls. These findings demonstrate the important role that CFRs play in rural communities, where access to emergency care services is more difficult. Although CFRs

attend more urgent calls, they also attend a variety of conditions indicating that the work of CFRs has expanded from its original purpose to attend life-threatening, out-of-hospital cardiac arrest. This has implications for the future development of CFR schemes which should prioritise training for a range of conditions, and access to more deprived and ethnically diverse areas.

Funding acknowledgement

This report presents independent research commissioned by the National Institute for Health Research (NIHR) Research for Patient Benefit Programme. The views and opinions expressed by authors in this publication are those of the authors and do not necessa

4E.7 Community Outpatient Psychotherapy Engagement Service for Self-Harm (COPESS): a feasibility trial

Presenter: Anna Hunt

Co-authors: ., Taylor, P2., Mills, C3., Clements, C2., Mulholland, H4., Kullu, C3., Hann, M2., Duarte, R4., Mattocks, F5., Guthrie, E6., Gabbay, M4., & Saini, P1.

Institutions: 1 Liverpool John Moores University, Liverpool, United Kingdom., 2 University of Manchester, Manchester, United Kingdom., 3 Mersey Care NHS Foundation Trust, Liverpool, United Kingdom., 4 The University of Liverpool, Liverpool, United Kingdom., 5 Penny Lane Surgery, Liverpool, United Kingdom., 6 The University of Leeds, Leeds, United Kingdom.

Abstract

Problem

People who self-harm are at high risk for future suicide and often suffer considerable emotional distress. Self-harm is often repeated, with risk of repetition highest immediately after an act of self-harm. Readily accessible brief talking therapies show promise in helping people who self-harm, but further evaluation of these approaches is needed. Through both quantitative and qualitative methods this study is assessing the feasibility and acceptability of implementing COPESS in a Primary Care setting.

Approach

Design: A mixed method study including both quantitative and qualitative methods. Participants and setting: Sixty participants based in North West United Kingdom with a history of self-harm within the last six months, who are also currently depressed are being recruited to take part in a feasibility single-blind randomised controlled trial (RCT). Randomisation: Participants will be randomised 1:1 to receive COPESS plus treatment as usual (TAU) or TAU alone. Recruitment will be via General Practitioners (GP) and self-referral. Intervention: A brief talking therapy intervention for depression and self-harm has been designed for use in a community Primary Care setting. COPESS (Community Outpatient Psychological Engagement Service for Self-Harm) consists of four 50-min weekly sessions of face to face or remote psychological therapy. A further follow-up session is offered 4 weeks after the end of therapy. Outcomes: Assessment of feasibility and acceptability of COPESS will be assessed. Participants will complete a batch of standardised questionnaires at follow-up assessments (see below) to be conducted at 4, 8 and 12 week's post-randomisation

Findings

37/60 participants have been recruited with an 85% retention rate and 12 qualitative interviews have been conducted with participants in both arms of the trial. Qualitative interviews have identified potential strengths and/or challenges of implementing brief community-based interventions for people who self-harm.

Consequences

Preliminary results suggest that COPESS is a clinically and cost effective intervention for people who self-harm in the community.

Funding acknowledgement

This project is funded by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number NIHR200543). The funding body had no role in the design of the study or in writing this manuscript.

4E.8 Changing mifepristone to a normal prescription: effect on primary care abortion provision

Presenter: Wendy V. Norman

Co-authors: Wendy Norman, Elizabeth Darling, Sheila Dunn, Michael Law, Janusz Kaczorowski, Laura Schummers, Kimberlyn McGrail

Institutions: University of British Columbia, McMaster University, University of Toronto, University of Montreal

Abstract

Problem

In Canada, mifepristone became available for medical abortion in January 2017. Previously all abortions were provided by physicians, mainly as a focussed practice or specialty in urban areas, and >96% were surgical. By November 2017 restrictive regulations were removed so that mifepristone could be provided as a regular prescription by any primary care physician or nurse-practitioner (NP), dispensed by any pharmacist, without requirements for certification or observed dosing. We investigated trends for abortion rate, method, and workforce, examining all most responsible professionals (MRP) providing abortion in the province with 40% of Canada's population.

Approach

We defined all medication and surgical abortion events from January 1, 2012 to March 15, 2020, by examining Ontario government linked health administrative data, including practitioner visits, hospital, emergency and ambulatory care admissions, and dispensed pharmaceuticals. For each abortion we identified one MRP. We examined temporal trends and rates for the number and characteristics of MRP, including age, sex, specialty, rural vs urban practice, and abortion method.

Findings

Among all 315,447 abortions we identified a MRP for 311,742 (98.3%). The abortion rate remained approximately 11 per 1000 female residents aged 15-49 throughout the study period, while the proportion of all abortions provided by medication increased from 2.2% to 31.4%. In the pre-mifepristone period (2012-2016), the number of providers of abortion each quarter was relatively stable and under 330, with 20.6% providing only medication abortion ('medication-only'). The number of providers trebled rapidly once mifepristone could be prescribed as a normal prescription, reaching 1104 by the end of the study period, with 877 (79.5%) providing 'medication-only'. By 2020, MRPs were mostly general practitioners (66.5%) with obstetrician gynecologists (O&G) and NPs as 23.2% and 9.1%, of the workforce respectively. For each discipline, the proportion of members providing abortion rose (GPs 0.5% to 1.9%; O&G 11.2% to 15.6%; NPs 0% to 2.5%). The number of abortion providers working in rural areas rose from 9 to 111 after restrictions were lifted, representing a 12-fold increase, while the proportion of all physicians working in rural areas remained unchanged. Providers' mean age fell 6.9 years. The proportion of female providers rose from 39.5% to 63.4% overall, increasing among both 'medication-only'

(53.5% to 65.2%) and ‘surgical-only’ providers (27.1% to 42.6%).

Consequences

Mifepristone availability without restrictions on distribution, prescribing and dispensing was associated with a rapid increase in primary care and rural provision of services. We observed a tripling of the overall number of most-responsible-professionals offering abortion care, while the abortion rate remained stable. New abortion providers were predominantly younger, female, primary care providers.

Funding acknowledgement

We acknowledge funding from the Government of Canada's Canadian Institutes of Health Research.

4F.1 Workshop

Mid-Career Solution Room

Presenter: Sarah Alderson and Rebecca Morris

Co-authors:

Institutions: Sarah Alderson, University of Leeds Rebecca Morris, University of Manchester

Abstract

WORKSHOP AIM AND INTENDED OUTCOME This workshop will bring together academics (educators and/or researchers) who are ‘mid-career’ to discuss the challenges experienced at this career point and to seek solutions as a group, and with an expert panel. While there is no universally accepted definition of a mid-career academic, this term is often applied to someone who approximately 5-8 years out from their last postgraduate degree and who has extensive experience of teaching and/or research across its lifecycle (from initial conceptualisation, design, implementation and evaluation). Importantly, being mid-career is not determined solely by ‘grade’, but rather reflects increasing experience, with increasing responsibility and/or opportunities for leadership roles. With this, comes unique challenges, and this workshop will allow delegates to explore such challenges (e.g., barriers to career progression, balancing clinical and academic roles, maintaining work-life balance) and identify solutions for pressing issues with peers and through discussion with an experienced panel of primary care academics. FORMAT A 90-minute interactive workshop in a “Solution Room” style. Preparation: Attendees - when signing up in advance for the workshop, please indicate your most pressing career-related questions/challenge. Attendees come prepared to discuss one question/challenge in a small group format. Expert panel - An ‘expert advisory panel’ are invited to attend. Proposed panel: 2x GPs 2 x Primary Health Care Scientists The panel will come prepared to introduce themselves and to aid facilitation of small groups, but mostly to provide the answers (“solutions”) to the most common/pressing questions and concerns identified during the discussion sessions. Workshop organisers will inform the panel of the concerns that are likely to be raised, based on the email response from registered attendees. INTENDED AUDIENCE Delegates who self-identify themselves as mid-career academics or will be entering this phase of their career soon.

5A.1 High prevalence of echocardiographic left ventricular hypertrophy and mortality in South Asians in the UK: E-ECHOES community study

Presenter: Eduard Shantsila

Co-authors: Eduard Shantsila1, Alena Shantsila2, Nefyn Williams1, Gregory YH Lip2, Paramjit S Gill3

Institutions: 1Department of Primary Care and Mental Health, University of Liverpool, UK 2Liverpool Centre for Cardiovascular Science, University of Liverpool and Liverpool Heart and Chest Hospital, Liverpool, UK. 3Academic Unit of Primary Care Warwick Medical School University of Warwick Coventry, UK

Abstract

Problem

Ethnic minority groups, including people of South-Asian origin, suffer from high cardiovascular morbidity and mortality, contributed by health inequalities. Hypertension is the key modifiable cardiovascular risk factor but is underdiagnosed, and the scale of the problem in South Asian communities is unknown. Left ventricular hypertrophy (LVH) is a measure of target organ damage related to uncontrolled hypertension and can be accurately assessed by echocardiography. The study aimed to assess prevalence of LVH in South Asian community and its impact on mortality.

Approach

This study is based on the large prospective UK community Ethnic-Echocardiographic Heart of England Screening Study (E-ECHOES) (age ≥45 years). Echocardiographic data were used to calculate left ventricular mass index (LVMI) following recommendations of the British Society of Echocardiography. LVH was established as increased LVMI. Predictive value of LVH overall and cardiovascular mortality was assessed using logistic regression (univariate and adjusted for age and sex). Statistical analyses were done using Python 3.9 (Pandas, Numpy, Scipy and Statsmodels libraries).

Findings

The included 3200 people of South Asian origin (age 59±10 years, 52% women, 45% had a history of hypertension). There were 182 deaths, including 64 cardiovascular deaths during a follow up of 5.8±1.0 years. Increased LVMI was found in 1952 people (61%, mild LVH n=518 [16%], moderate LVH n=451 [14%], severe LVH n=983 [31%], based on LVMI). Among those with LVH, 940 patients [48%] did not have a diagnosis of hypertension. LVH was as associated with increased overall mortality (univariate odds ratio [OR] 2.34, 95% confidence interval [CI] 1.66-3.90, p<0.001, adjusted OR 1.70, 95% CI 1.17-2.46, p<0.005) and cardiovascular mortality (univariate OR 3.52, 95% CI 1.79-6.94, p<0.001, adjusted OR 2.65, 95% CI 1.33-5.28, p<0.005).

Consequences

People of South Asian origin have a very high rate of complicated (i.e., LVH) hypertension, often non-diagnosed. The presence of LVH is linked to high overall and cardiovascular mortality. There is a clear need to improve community detection and management of hypertension in ethnic minority groups in the UK to address health inequalities.

5A.2 What are the primary care experiences and health and healthcare outcomes for transgender and non-binary adults in England? Analysis of data from the 2021 GP Patient Survey

Presenter: Catherine Saunders

Co-authors: Jenny Lund

Institutions: Primary Care Unit, University of Cambridge

Abstract

Problem

During 2020 we carried out a research prioritisation exercise, working with an LGBTQ+ (Q+ here includes queer and other identities) patient and public involvement (PPI) panel to identify the most important areas for future research. The top three research themes prioritised by the panel were first, health service delivery (particularly primary care), second, prevention of ill-health, and third, research understanding the intersection of sexual orientation and gender identity with other disadvantage. However research to provide the evidence and insight needed to address these inequalities in health and healthcare outcomes has been limited in part by disproportionately poor recording of sexual orientation, and particularly gender identity, in routine data.One data resource that has been important to date is the GP Patient Survey. Data are collected annually to measure patient experience in primary care in England, to support the improvement of primary care quality. The survey first collected information on sexual orientation in 2009 and gender identity in 2021, with the inclusion of "Non binary" as an option along with "Male" and "Female" in the survey question asking about gender, and a second additional question asking "Is your gender identity the same as the sex you were registered at birth?" with response options "Yes", "No" and "Prefer not to say". Questions are additionally asked about long-term physical and mental health conditions, and in 2021 a question was asked about shielding during Covid-19.

Approach

The over-arching aim of this research is to provide evidence which will underpin efforts to improve the health and healthcare outcomes of LGBTQ+ populations, with a particular focus on transgender adults, which is the area where large-scale quantitative evidence is most limited. The analysis will answer the following research questions:

1. What are the socio-demographic and health characteristics (age, gender, ethnicity, deprivation, sexual orientation, region of residence and long-term mental and physical health condition profile) of transgender and non-binary adults in England? How do these compare with the characteristics of the population of England overall?

2. What are the primary care experiences of transgender and non-binary adults in England?

3. Were transgender and non-binary adults in England more or less likely to have been shielding during Covid-19, and are any differences explained by age, gender, socio-economic deprivation or long-term health conditions? GP Patient Survey data for this analysis have been shared with the University of Cambridge under a Data Sharing Agreement with NHS England.

We develop a full protocol in collaboration with PPI contributors, before carrying out the final analyses for this work.

Findings

We will present the results of these analyses at the 2022 SAPC ASM

Consequences

We will discuss the implications of our findings for policy and practice

5A.3 Promoting nurse-led behaviour change to prevent cardiovascular disease in disadvantaged communities: A scoping review

Presenter: John Broughan

Co-authors: Sarah Freeley (1st author), John Broughan, Geoff McCombe, Mary Casey, Tim Collins, Patricia Fitzpatrick, Timmy Frawley, Janis Morrissey, JT Treanor, Walter Cullen

Institutions: 1 School of Medicine, University College Dublin., 2 School of Nursing, Midwifery and Health Systems, University College Dublin. 3 Irish Heart Foundation, Dublin. 4 School of Public Health, Physiotherapy and Sports Science, University College Dublin. 5 St. Vincent's University Hospital, Dublin 4, Ireland

Abstract

Problem

Cardiovascular diseases (CVD) are the leading cause of death worldwide and they disproportionally affect people living in disadvantaged communities. Nurse-led behaviour change interventions show promise in preventing CVD. Knowledge regarding the nature and impact of such interventions in disadvantaged communities is limited. This review aimed to address this limitation.

Approach

A six-stage scoping review framework developed by Arksey and O'Malley, with revisions by Levac et al., was used. The search process was guided by the PRISMA Extension for Scoping Reviews (PRISMA-ScR) framework. Three electronic databases were searched (PUBMED/MEDLINE, CINAHL Plus, and Cochrane CENTRAL), and included studies were analysed using Braun and Clarke's 'Thematic Analysis' approach.

Findings

Thirty studies were included. They investigated interventions to reduce overall CVD risk or to improve modifiable CVD risk factors (uncontrolled diabetes mellitus, hypertension, hypercholesterolemia, poor diet, lack of exercise, smoking and excessive alcohol consumption). The studies examined the efficacy and/or structure of these interventions and they described barriers that nurses faced. Five key areas were identified in the promotion of nurse-led behaviour change. These are (i) tailoring interventions to specific populations (ii) overcoming access difficulties (iii) encouraging patient engagement (iv) providing adequate training for nurses and (v) addressing barriers faced by nurses.

Consequences

Overall, the findings indicate that nurse-led behaviour change interventions for high-risk CVD patients in disadvantaged areas show much promise although there is considerable variation in the interventions employed and studied to date. Further research is needed to examine the unique barriers and facilitators of interventions for specific disadvantaged groups.

Funding acknowledgement

We would like to thank the Health Research Board's Summer Student Scholarship initiative which funded this study.

5A.4 Feasibility of a Targeted Intensive Community-based campaign To Optimise vague Cancer (TIC-TOC) symptom awareness and help-seeking in an area of high socioeconomic deprivation

Presenter: Eleanor Clarke

Co-authors:

Institutions: Cardiff University

Abstract

Problem

Rapid Diagnostic Centres (RDCs) are being implemented across the UK to accelerate the diagnosis of vague suspected cancer symptoms such as unexplained weight loss and persistent fatigue. While public awareness of classic alarm symptoms such as unexplained lumps and bleeding is good, awareness of vague cancer symptoms is poor and when combined with high cancer fear and fatalism, may contribute to prolonged symptom presentation in socioeconomically deprived populations. Targeted behavioural interventions are needed to augment RDCs that serve socioeconomically deprived populations who are disproportionately affected by cancer. This mixed-methods study is assessing the feasibility of delivering and evaluating a community-based symptom awareness intervention in an area of high socioeconomic deprivation in South Wales, UK.

Approach

A co-produced intervention aligned to the COM-B Model (Michie et al., 2011) is being delivered from July 2021-March 2022, targeting members of the public aged 18+. The multi-faceted intervention comprises messages designed to increase cancer symptom knowledge, modify beliefs about cancer and encourage timely symptom help-seeking. Cancer champions who are lay members of the local community have been trained to deliver intervention messages using dissemination channels including broadcast (e.g. local radio adverts), social/digital (e.g. targeted Facebook adverts) and outdoor/printed (e.g. supermarket billboards, leaflets, pharmacy bags) media.Consent rate and proportion of missing data are assessed using questionnaires administered to patients referred to RDCs in the intervention and comparator areas (target n=189). Measures include the adapted C-SIM (Neal et al., 2014) to assess self-reported patient interval. Facebook metrics, including reach and post engagement will be captured. Qualitative interviews and/or focus groups (n=40) are assessing intervention acceptability and barriers/facilitators to delivery and evaluation.

Findings

Ongoing COVID-19 restrictions required flexible adaptation of study procedures to reduce barriers to remote data collection. Four cancer champions were successfully recruited to deliver the intervention. Targeted Facebook advertisements have reached 118,400 people in the Cwm Taf area with 19,300 post engagements. Reach of and engagement with paid advertisements was higher for females and those aged 55 years +. To date, 156 RDC patients have agreed to be contacted about the study (55 intervention area, 101 comparator area) of whom 17 have completed the questionnaire. Interviews have been conducted with four patients and six cancer champion interviews have been completed. Preliminary findings will be presented.

Consequences

The TICTOC study launched against a challenging backdrop of continued COVID-19 restrictions. The results will inform optimal methods of implementing and evaluating behavioural interventions to support RDCs in highly deprived populations, during and beyond the pandemic.

Funding acknowledgement

This study has been funded by Cancer Research Wales.

5A.5 How do we make trials equitable and inclusive?

Presenter: Tanvi Rai

Co-authors: Lisa Hinton, Richard McManus, Catherine Pope

Institutions: Nuffield Department of Primary Care Health Sciences, University of Oxford and The Healthcare Improvement Studies Institute, University of Cambridge

Abstract

Problem

People from ethnic minority groups suffer more strokes at younger ages, of greater severity, with worse outcomes and with increased risk of reoccurrence, compared to white people. A similar picture exists for other cardiovascular conditions. When trials exclude population groups which potentially have the most to benefit from research (because they have the worst baseline health) this contributes to waste in research, and needs to be addressed.

Approach

We retrospectively examined, step-by-step, the procedures we had followed during our planned trial (BP:Together) to reveal how normalised and routinized trial assumptions, procedures and practices can systematically exclude people from ethnic minorities and other disadvantaged groups. Using this learning, we are developing new methods to make research more representative and inclusive, in order to deliver better science.

Findings

National statistics for disease prevalence and severity help to map out geographical regions worst affected by particular conditions, which need to be prioritised as study sites. Likewise, if conditions disproportionately affect particular racialised groups, they need to be over-sampled for the trial. This can be at the site selection stage, where sites with more ethnically-diverse patient lists are given extra support to encourage participation. Extra time and resources need to be costed in at the application stage to ensure enough contact time for high recruitment and retention. Trial teams should consider hiring researchers with appropriate cultural and language skills, and to develop partnerships with community groups for sustainable current and future research relationships.

Consequences

Researchers and trialist needs to acknowledge and respond to existing structural inequalities in society so as to not replicate them. This requires re-visiting current, normalised practices and procedures and modifying them appropriately in order to make research, and the benefits derived from them, more accessible to everyone.

Funding acknowledgement

Stroke Association and British Heart Foundation, Grant/Award Number: TSA BHF 2017/01

5A.6 How prepared are hairdressing salons and GP practices for working in partnership to promote the uptake of cardiovascular disease screening among women living in London's deprived and ethnically dense communities?

Presenter: Tethi Patel

Co-authors: Tethi Patel*, Marjorie Lima de Vale Phd1 , Clare Coultas Phd1, Louise Goff Phd1, Ashlyn Mernagh-iles HND, Veline L'Esperance MSc1, Alexis Karamanos PhD1, Salma Ayis PhD1, Vasa Ćurčin, PhD1, Stevo Durbaba MSc1, Mariam Molokhia, Phd1 and Seeromanie Harding

Institutions: King's College London

Abstract

Problem

Hairdressing salons are community assets, offer the opportunity of meeting women in a place of trust within their community; a venue where they frequent, network and participate in thoughtful discussions. Leveraging beauty salons for health promotion has already shown promise among African American women in the United States, with evidence of a positive impact on blood pressure control and for the feasibility of training salon therapists in health promotion. In the UK, ethnicity and deprivation are consistent correlates of cardiovascular disease (CVD) risk factors, and of low uptake of screening services. We explored the preparedness of embedding beauty salons into the primary health care pathway in London's deprived neighbourhoods to improve early detection and management of CVD.

Approach

An initial "readiness" phase for a feasibility project, used a sampling frame of salons using GIS, online directories and participatory mapping. An overlapping map of hair salons, GP practices, prevalence of CVD and mortality, Index of Multiple Deprivation in particular areas, and ethnic specific densities was developed. Readiness assessments of eligible GP surgeries (4) and salons (~8) used qualitative and quantitative tools developed for studies on integrated community-primary health care systems, based on WHO guidance. These include questions on governance, capacity, community-primary care collaborations, communication and information technology platforms.

Findings

We will report on interviews with salon staff working in a mixture of salons that target specific ethnic groups (e.g. Black Caribbeans, Black Africans) as well as those that cater for clients from different ethnic/migrant groups (e.g. Irish, South Asians, White British, Latin Americans, Eastern Europeans), and are located in most deprived 4th/5th IMD quintiles areas with high CVD need. We will also report on interviews with practitioners in the neighbouring GP practices, particularly in relation to their perceptions of cultural safety, competing priorities, community referral and follow-up systems and other governance issues that could affect sustainability. The results will inform the key barriers and enablers for salons and GP practices jointly delivering a culturally accessible CVD prevention service model.

Consequences

Establishing partnerships between health and community systems provides the potential for effective, equitable and efficient services. Hairdressing salon settings are a powerful community asset and a partnership with GP practices could facilitate CVD prevention services with equitable reach.

Funding acknowledgement

National Institute of Health Research for Patient Benefit Programme (NIHR202769)

5A.7 What is the effect of frailty in combination with loneliness or social isolation on all-cause mortality in the UK Biobank?

Presenter: Marina Politis

Co-authors: Peter Hanlon, Lynsay Crawford, Bhautesh Jani, Barbara Nicholl, Jim Lewsey, David McAllister, Frances Mair

Institutions: Institute of Health & Wellbeing, University of Glasgow

Abstract

Problem

Three health and social care related challenges for ageing populations are frailty (a state of reduced physiological reserve), social isolation (objective lack of social connections), and loneliness (subjective experience of feeling alone). These are associated with various adverse outcomes. The impact of combinations of these factors, however, is less clear. We examined how frailty in combination with loneliness or social isolation is associated with all-cause mortality using UK Biobank data.

Approach

UK Biobank participants aged 37-73 were recruited 2006-2010. Baseline data assessed frailty (frailty phenotype based on 5 criteria, 0=robust, 1-2=pre-frail, ≥3=frail and frailty index based on a count of deficits and categorised as robust (0-0.12), mild (0.12-0.24), moderate (0.24-0.36) and severe (>0.36) frailty), social isolation (a three-item scale, ≥2=socially isolated) and loneliness (two questions, 2=lonely). Each frailty measure was analysed separately in combination with loneliness and social isolation. Cox-proportional hazards models assessed association between frailty and loneliness or frailty and social isolation and all-cause mortality, adjusting for age, sex, ethnicity, socioeconomic status, smoking and alcohol intake.

Findings

461,047 with complete data were included (mean age 56.5, 251,604 female). Social isolation was more prevalent in frail participants (e.g. 21.1%, 3,282/15,564, of frail participants based on frailty phenotype) compared to pre-frail (11.1%, 19,017/172,053) and robust (7.1%, 19,359/273,430) participants. Findings were similar for loneliness (loneliness prevalence 13.7%, 6.4% and 3.2% in frail, pre-frail or robust participants, respectively). Frailty, social isolation, and loneliness were all more common in the context of higher socioeconomic deprivation. Social isolation was associated with increased mortality risk at all levels of frailty (frailty phenotype). Compared to robust non-isolated participants, hazard ratio (HR) was 1.29 (95% confidence intervals 1.22-1.37) for robust with social isolation. HRs for pre-frailty were 1.96 (1.87-2.06) with and 1.45 (1.41-1.49) without social isolation. HRs for frailty were 3.38 (3.11-3.67) with and 2.89 (2.75-3.05) without social isolation. As confidence intervals do not overlap, likely to have statistically significant additive interaction between frailty and social isolation on mortality risk. Loneliness was associated with increased mortality risk in robust participants (HR 1.14 (1.04-1.25)) and in pre-frail participants (HR 1.67 (1.56-1.79) with loneliness and 1.46 (1.42-1.50) without loneliness). However, for frail participants hazard ratios were similar with or without loneliness (2.94 (2.64-3.27) and 2.90 (2.76-3.04), respectively). Findings were similar when using the frailty index in place of the frailty phenotype.

Consequences

Social isolation is associated with greater risk of mortality across the frailty spectrum.

Loneliness is also associated with mortality, with the greatest relative increase in risk seen in robust or pre-frail people. Pro-active identification of social isolation and loneliness within primary care, regardless of physical health status, may provide important opportunities for intervention and risk mitigation. Health and social care policies should consider the need to mitigate loneliness and social isolation.

Funding acknowledgement

Peter Hanlon is funded through a Clinical Research Training Fellowship from the Medical Research Council (Grant reference: MR/S021949/1).

5A.8 Understanding the experiences of parents of children with disabilities interactions with general practice: A systematic review.

Presenter: Nicky Thomas

Co-authors: Hayley Crawford, Jeremy Dale, Kayla Smith, Eleanor Watson & Helen Atherton

Institutions: University of Warwick

Abstract

Problem

Research exploring parent carers experiences of general practice is limited compared with other carer groups. There is currently no systematic review which addresses the experiences or interactions with general practice from the perspective of parent carers of children with disabilities. Exploring the experiences of parent carers, is vital to highlight future research priorities. This review aims to explore experiences of general practice for parent carers of children and young people with disabilities and how these interactions are perceived in supporting the parent carer role. The following objectives are included: 1) To identify, quality appraise and synthesise studies on parent carers experiences and interactions with general practice. 2) To explore parent carers perspectives and views of general practice in providing relevant services (e.g., advice, resources, interventions) for parents who care for children with disabilities. 3) To identify implications for future research in this area

Approach

The systematic review included all study types. Only studies published in the English language were included and no date restrictions were implemented due to limited literature on this topic area. Databases were searched using pre-determined search strategy, and results were screened for eligibility according to a detailed inclusion criterion, involving title, abstract and full text screening. Quality of included studies will be completed using the Mixed Methods Appraisal Tool, and findings will be synthesised narratively to analyse, integrate and summarise the evidence

Findings

This review is currently ongoing, and data will be available in July to present. Synthesising research that examines parent carers of children with disabilities experiences of general practice will identify parent carers' needs from general practice, and relevant support that has been used to sustain their caring role within the community. Potential findings will highlight what works well and barriers to accessing general practice care (including during Covid-19 pandemic) for parent carers.

Consequences

This review will bring awareness to the experiences of parent carers whilst seeking general and mental health support from general practice for their own health, to sustain their caring role long term. This review will identify gaps in the literature that require further investigation and areas of future research for parent carers and the role

general practice plays in delivering care to this vulnerable group. In addition, recommendations for policy and practice will be beneficial as there are no current guidelines that explicitly refer to supporting parent carers of children with disabilities in general practice.

5B.1 Barriers and facilitators to the use of personal information documents in health and social care settings for people living with dementia: a systematic review and thematic synthesis

Presenter: Fiona Wood

Co-authors: Emily Clark, Suzanne Wood

Institutions: Cardiff University, Public Health Wales

Abstract

Problem

People living with dementia (PLWD) experience communication difficulties. Personal information documents (PIDs), or healthcare passports, enable the collation and communication of information essential for the care of a person with dementia. Despite the potential for providing person-centred care, personal information documents are not ubiquitously used. The Capability Opportunity Motivation – Behaviour (COM-B) model can be used to understand factors determining individuals' behaviour, such as use or non-use of clinical person-centred care tools. We aimed to identify the barriers to, and facilitators of, the use of healthcare passports for people living with dementia through a systematic review methodology.

Approach

A systematic search of six electronic databases was undertaken. Grey literature was also searched using three databases. Inclusion criteria included studies of all study types reporting barriers to or facilitators of the use of personal information documents in the care of adults living with dementia in high-income settings. Studies based in any setting and incorporating the perspective of any individuals who use, implement, or benefit from the healthcare passport. Studies were quality appraised using the NICE checklist. Following data extraction, thematic synthesis was used to develop descriptive themes, which were subsequently mapped to the COM-B framework.

Findings

Eighteen papers were included in the review, of which 11 detailed a single-component intervention and 7 described a PID as part of a multi-component intervention. Experiences were included from PLWD, carers, and healthcare professionals. Most studies evaluated their own PIDs but four studies evaluated the 'This is Me' developed by the Alzheimer's Society. A broad range of barriers and facilitators were identified within each COM-B domain. Themes included training, awareness, embedding the process in norms, and appreciating the value of the personal information documents. A key finding was that PIDs were valued by PLWD, carers, and HCPs. Experiences of PID use demonstrated benefits at multiple levels: PLWD received higher quality personalised care, carer stress was reduced, and HCP could provide better quality of care.

Consequences

This framework provides a starting point for evidence-informed initiatives to improve the use of personal information documents in the care of people with dementia. This review identified the importance of clarifying in advance the responsibility for the PID, the purpose and process for its use, including how to embed the PID within current work practices. Future research should consider the impact of the SARS-CoV-2 pandemic on the

use of PIDs in dementia care, as visiting restrictions to care homes and hospitals have changed, and so the relative value of the PID may have changed. The impact of carer stress, HCP workload, organisational priorities during the pandemic may also have changed the use of PIDs in practice.

5B.2 Optimising person-centred primary care: the need for epistemic reciprocity

Presenter: Myriam Dell'Olio

Co-authors: Paul Whybrow, Joanne Reeve

Institutions: Academy of Primary Care, Hull York Medical School

Abstract

Problem

Delivering Person-centred care is a policy priority, yet people living with long-term conditions tell us it isn't part of the healthcare they receive. In previous research, patients have described that they feel healthcare staff fails to properly listen to individual accounts of living with illness, hence not using those stories to shape treatment decisions. This contributes to a failure of person-centred care. In order to address this problem, we set out to understand how adults with chronic conditions experience the care they receive in primary care settings, and what needs to change to optimise person-centred care.

Approach

Multi-method qualitative design. Forty-two adults with long-term conditions were interviewed about their primary care experiences either individually or in groups. Analysis – interpretive phenomenological analysis (individual interviews) and thematic analysis (focus groups). Integration of data from both methods through an approach that focused on their complementarity.

Findings

People use experiential knowledge developed through activities of information seeking, experimenting and reflection to learn how to live with their illness. They brought these accounts to primary care settings in the form of patient knowledge to negotiate care. Person-centred experiences were characterised by a 'clinical negotiation' between clinician and patient using different types of knowledge and grounded in both the patient's and the doctor's sense-making work. This negotiation based on mutual inquiry valued and enhanced the patient's healthcare experience. We therefore propose a new concept, epistemic reciprocity, as a principle that guides person-centred clinical negotiations fostering the co-creation of new knowledge of patient experience and need through the interactive work of patient and doctor.

Consequences

These findings establish epistemic reciprocity as a core component of person-centred care. We call for its incorporation in clinical practice and education. This would require a redesign of primary care services to support person-centred approaches. At the practice level, changes might focus on timing, headspace, pre-consultation, and post-consultation work. Medical education could also benefit from initiatives that aim to develop scholarship skills across primary care professionals, for example through training in the robust and safe construction of knowledge in practice.

Funding acknowledgement

This study was conducted as part of a cluster of PhD projects funded by the University of Hull.

5B.3 Public perceptions and experiences of GP remote consultations during the pandemic: longitudinal qualitative findings from the COVID-19 Cancer Attitudes and Behaviours Study

Presenter: Harriet Quinn-Scoggins

Co-authors: Jacqueline Hughes, Yvonne Moriarty, Rebecca Cannings-John, Ardiana Gjini, Mark Goddard, Detelina Grozeva, Julie Hepburn, Graham Moore, Kirstie Osborne, Michael Robling, Julia Townson, Jo Waller, Katriina Whitaker, Victoria Whitelock, Kate Brain

Institutions: Cardiff University, Cancer Research UK, Kings College London, Lay research partner, Public Health Wales, University of Surrey

Abstract

Problem

The COVID-19 pandemic caused a rapid shift from face-to-face to remote general practice (GP) consultations in the UK. With restrictions on face-to-face primary care services enforced from March 2020 to reduce contagion, remote consultations provided a means of supporting patients and maintaining crucial services. Understanding the acceptability and potential impact of this restructuring on symptom help-seeking behaviours in the general population is essential to inform future service planning in primary care, especially considering the GP gateway for urgent referrals for suspected cancer. We explored the changing views and experiences of remote GP consulting from the public perspective at two time points during the pandemic.

Approach

Adult participants in the COVID-19 Cancer Attitudes and Behaviours Study cohort who consented to interview were purposefully sampled (by age, gender and symptom experience) for semi-structured paired telephone interviews. Interviews were conducted between September and November 2020 (Wave1) and March and April 2021 (Wave 2). Participants were asked about their views and experiences of GP remote consultations as part of a wider interview. Consent for interview and audio-recording was reconfirmed verbally prior to commencement, and participants were reimbursed with a £20 voucher. Audio recordings were transcribed, anonymised and thematically analysed using inductive and deductive coding. NVivo 12 was used to aid data organisation. Twenty percent of data were independently dual coded.

Findings

Thirty participants were interviewed during Wave 1, of whom 26 were followed-up in Wave 2 (n=17 males, age 26-76 years). In Wave 1, participants who had contacted their GP during the pandemic were pleased with the care received and use of remote procedures (majority telephone based). Initially the prospect of remote procedures had put participants off and acted as a barrier to help-seeking, though when experienced these were better than anticipated. Participants were amenable to continued use of remote consulting in the knowledge that face-to-face appointments would be available based on clinical need and preference, and that the needs of those potentially excluded from remote consulting were being considered. Initially, participants described understanding the need to protect the NHS and reduce GP contact. At follow-up, they had assumed that the increased flexibility and efficiency afforded by remote consultations would translate into additional capacity and were very discouraged at finding it harder to get GP appointments again for themselves and others. This was also heightened by an awareness of negative media reporting on the topic. ConsequencesRemote consultations were broadly acceptable to the public,

especially for non-urgent concerns, but enthusiasm waned as the pandemic progressed. Remote consultations are an important strategy for increasing access to primary care services, but considerations must be given to inclusivity and workforce capacity.

Funding acknowledgement

This work was supported by Economic and Social Research Council as part of UK Research and Innovation's Rapid Response to COVID-19 grant number ES/V00591X/1.

5B.4 Understanding the roles and work of paramedics in primary care: A national cross-sectional survey

Presenter: Georgette Eaton

Co-authors: Geoff Wong; Stephanie Tierney; Veronika Williams; Kamal R Mahtani; Julia Williams

Institutions: University of Oxford; University of Hertfordshire

Abstract

Problem

Our recently published realist review (Eaton et al, 2021) highlights the complexity surrounding the introduction of paramedics into primary care roles. Our review of 205 documents published from 2004-2021 found that paramedic professional identity, interprofessional work and expectations of patients, General Practitioners, and paramedics themselves all required further understanding in order to determine the optimal employment of paramedics in this clinical setting. With a dearth of other research focussing on the paramedic role in primary care, we wished to address this gap by undertaking a cross-sectional survey of paramedics working in primary care across the United Kingdom to gain insight into their role, scope of practice and the contributions they believe they are making within this workforce.

Approach

The study consisted of a national cross-sectional online survey questionnaire addressed to paramedics working in primary care. The questioning focussed on gaining information relating to employment conditions, scope of practice, educational requirements and salary for paramedics working in primary care. A total of 341 surveys were returned.Data was analysed using descriptive statistics, chi-squared and kruskal-wallis tests, and a realist logic of analysis.

Findings

Considerable variation was found in role titles, scope of practice, and educational backgrounds of paramedics working in primary care. Relationships were found to exist between job title, prescribing status, education level and breadth of practice. In response to the free-text questioning, paramedics called for improvements in clinical supervision and continuing professional development (such as undertaking independent prescribing), alongside further support in navigating the transition into primary care.

Consequences

As paramedics' transition into roles within primary care, their knowledge and skill set will undoubtedly change. In order to contribute to patients and the NHS primary care agenda, the current opportunities for paramedics' employment in primary care requires careful evaluation. This survey is the first to present empirical evidence of the current work undertaken by paramedics across the UK NHS, and offer insight into employment models, scope of practice, and relationships between job title, education level, prescribing status and scope of role.

Funding acknowledgement

National Institute for Health Research (NIHR) Doctoral Research Fellowship (NIHR300681).

5B.5 Understanding GP Burnout and broken spirits

Presenter: Orla Whitehead

Co-authors: Suzanne Moffat, Carol Jagger, Barbara Hanratty

Institutions: Newcastle University

Abstract

Problem

A recent (2021) survey of 1318 UK GPs showed burnout is at crisis levels, with one in five participants at highest risk for burnout. This survey demonstrated that burnout occurs across all demographics of GPs. Burnout was associated with spiritual health, irrespective of any religious affiliation. GPs with poor spiritual health were five times more likely to be in the highest risk group for burnout. As current approaches to GP burnout are clearly not working, new responses are required. The potentially protective impact of spiritual health may have a role in burnout prevention and needs further investigation.

Approach

To date, sixteen in-depth interviews have been conducted with GPs who have lived experience of burnout, exploring the effects of burnout on work, life outside work, spiritual health and identity. A thematic analysis is being conducted alongside data collection.

Findings

Participants echoed the World Health Organisation definition of burnout as an occupational phenomenon. They described how GP workloads and challenges have increased, which can have profound effects on life outside of work. Partnerships, and subsequent managerial and financial challenges could precipitate and worsen burnout. This includes wider issues of relationships, finances, identity, spirituality and existential questions. Barriers to seeking early help for burnout included time, culture, 'dark humour', sense of failure, stigma and comorbid physical and mental health problems. Grief for the life participants expected as a GP, as well as perceptions of worsening working conditions appear to cause strain. Underlying neurodiversity, adverse childhood experiences, and personal identity and meaning were identified as potentially predisposing factors for GPs to burnout, as well as effects of gender and ethnicity on experiences of burnout.

Consequences

GP burnout is an holistic problem, often only addressed after crisis is reached, whether in relationships, finances, or mental or physical health. Activities that nurture spiritual health such as yoga, therapy, a strong ethical code, philosophy, religious practice etc appear to be beneficial to GPs who have experienced burnout and return to the workplace, although there is unlikely to be a spiritual panacea. Doctors at particularly high risk may benefit from early intervention with enhanced organisational awareness and support. This research will provide data to assist the development of proactive organisational interventions to reduce burnout levels in GPs.

Funding acknowledgement

OW is funded by the National Institute for Health Research (NIHR) on an in practice fellowship. BH is funded by the NIHR Applied Research Collaboration North East and North Cumbria. The views expressed are those of the authors and not necessarily those o

5B.6 Patient Experience of Remote GP Consultations in Relation to Multimorbidity and Socioeconomic Status

Presenter: Dr Anna Evans

Co-authors: Dr Greg Irving, Dr Katherine Knighting, Mr Rowan Pritchard-Jones

Institutions: Edge Hill University, St Helens and Knowsley Teaching Hospitals NHS Trust.

Abstract

Problem

Multimorbidity is a significant and pressing burden for the individual sufferer, society, and the NHS. Multimorbidity accounts for the majority of GP consultations with more than half the UK population over 65 years affected. Disproportionately affecting those who are disadvantaged in other ways: social deprivation, non-white ethnicity, mental ill-health, disability, increasing age and female gender are all associated with multimorbidity. These factors are also associated with digital exclusion and the digital divide. This is important because it is not known how the sudden transition to remote GP consultation, and the reliance on digital consultation methods during the COVID-19 pandemic has affected patient experience of accessing healthcare. Aim is to explore how a person's multimorbidity and socioeconomic status interact to affect their experience of accessing healthcare, and the impact of the transition to remote GP consultation during the COVID-19 pandemic.

Approach

A co-production approach has been taken to develop a phenomenological, qualitative interview study informed by epidemiological analysis of a local shared care record, as part of a NIHR PhD project. Sampling of people with multimorbidity will include people with serious mental illness and learning disability as well as the elderly, homeless and asylum seekers. This choice of cohorts is informed by the literature, public consultation and epidemiological data from a shared care record. This novel approach will evaluate the utility of a shared care record as an integrated care system. The semi structured interviews have been co-designed with specific public advisors to maximise acceptability and access for the participants. Recruitment is by invitation, in collaboration with several NHS and community organisations across the Northwest of England.

Findings

This study will expose taken-for-granted assumptions about healthcare access, contributing authentic and timely understanding of the lived experiences and circumstances that affect a person's ability to access, or not access, their GP via remote consultation. The COVID-19 pandemic has highlighted many existing inequalities. Evaluation of the inequality of digital exclusion and its impact on healthcare access during this time will provide essential learning to health care professionals and service providers.

Consequences

This research will provide new insight into how to mitigate the impact of digital exclusion and the digital divide on health care access. Adaptation of GP services is necessary for those who are at risk of digital exclusion, particularly in light of the NHS long term for digitally- enabled care. Healthcare providers must adapt in practical, relevant, acceptable, and effective ways. This investigation will also give voice to the experiences and opinions of some of the groups of people who are typically excluded from research.

Funding acknowledgement

NIHR Applied Research Collaboration North West Coast PhD Studentship

5B.7 Community Pharmacy and General Practice collaborative and integrated working: a realist review

Presenter: Emily Owen.

Co-authors: Cate Whittlesea, Claire Duddy, Deborah Swinglehurst, Fran Husson, Geoff Wong, Julia Hamer-Hunt, Kamal Mahtani, Malcolm Turner, Margaret Ogden, Nina Fudge, Sophie Park.

Institutions: University College London, University of Oxford, and Queen Mary University of London.

Abstract

Problem

The NHS Long-Term Plan is underpinned by expectations of collaborative and integrated working in primary care. The opportunities and challenges this presents for organisation and delivery in practice are relatively unexplored. NHS Long-Term Plan implementation has been rapid and involves a range of approaches across diverse contexts and settings. This realist review focuses on the working relationships between Community Pharmacy (CP) and General Practice (GP). Importantly, the review will explore and make visible the wider human, policy, regulatory, and professional elements that may influence this working relationship. The aim of our review is to understand how, when, and why working arrangements may provide the conditions necessary for optimal communication, decision-making, and collaborative and integrated working between CP and GP. This will inform ways of future working and maximise opportunities for effective and equitable patient care.

Approach

To make sense of the complexities inherent in the working relationships between CP and GP, we have chosen a realist review approach. This is an interpretative and theory-driven approach to synthesising evidence from grey literature, qualitative, quantitative, and mixed-methods research. It enables the use of a range of data types to make sense of and address the context sensitive outcomes arising from interactions between CP and GP. It develops an understanding (expressed in the form of a realist programme theory) that will be transferable across different structures and contexts within which CP and GP operate.

Findings

We will present our emerging findings in the form of a programme theory that explains the relationships between provider contractual requirements, NHS England policy drivers, professional identities, organisational cultures within GP and CP, and how financial incentives and competition may shape strategies, behaviours, and policy implementation.

Consequences

This review will provide insights and solutions to maximise CP and GP collaboration and integration. The findings and refined programme theories will ensure patients health is kept central to CP and GP working relationships and processes. These working relationships and arrangements impact on patient experience, patient safety and medication errors, access, care, and formal referral; alongside professional capacity, training, and workload. The review findings are likely to have broader relevance to other primary care interfaces and the future productive shaping of integrated and collaborative working.

Funding acknowledgement

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5B.8 Investigating Clinical Excellence Awards (INCEA): how do current assessors and other key stakeholders define and score excellence? Qualitative interviews study

Presenter: Bethan Treadgold

Co-authors: Emma Pitchforth, Gary Abel, Jon Sussex, Lucy Hocking, Rob Froud, John Campbell

Institutions: University of Exeter, RAND Europe, Clinvivo Ltd

Abstract

Problem

The Clinical Excellence Awards (CEA) scheme has been in place since 1948 in England and Wales to reward consultants, academic GPs, and dentists in making an outstanding contribution to the NHS. Significant changes in the structure and delivery of the scheme have been anticipated for several years. Following review and a national consultation, a new National CEA scheme is in the process of being implemented from 2022/23. A core part of the revised scheme is to have a scoring system that is robust, equitable, able to distinguish between levels of excellence, and aligned with ACCEA's (Advisory Committee on Clinical Excellence Awards) overall goals. The aim of this qualitative component of the research was to understand how key informants would define excellence, score to differentiate between levels of excellence, and ensure non-discriminatory definitions and scoring.

Approach

Semi-structured qualitative interviews were conducted with 25 key informants, which included ACCEA sub-committee assessors and representatives of professional organisations affiliated with the NHS. Purposive sampling was used to achieve a varied sample in terms of gender and ethnicity and to capture different views and experiences. Informants were invited on the basis of ACCEA membership or through membership of relevant national level organisations such as Royal Colleges or groups representing particular groups of doctors. Interviews sought to explore key informants' views on defining clinical excellence, experiences of scoring excellence, and around equity. Interviews were conducted by phone or Zoom/Teams, audio recorded, and transcribed using a professional transcription company. Transcripts were analysed using an inductive thematic approach.

Findings

Informants felt that the CEAs have a role in incentivising doctors to strive for excellence. A broad range of views were expressed on what constitutes 'clinical excellence' and what should be rewarded, which included going over and above job expectations, making a difference to patients and the NHS, and demonstrating the impact of excellence. In scoring excellence, assessors provided varied definitions and preferences for measurement scores. Assessors detailed their approaches to guard against perceived challenges with the scoring scheme and to ensure a fair assessment, such as scoring consistently as a 'dove' or 'hawk' and being aware of their own potential unconscious biases. Perceived inequities were raised around generating evidence for certain specialities, in certain hospital settings, working hours, and due to the self-nomination process. A number of practical suggestions were made for ACCEA in relation to improving support and training for applicants and assessors, as well as promoting the scheme.

Consequences

CEAs represent a significant opportunity for senior doctors in England and Wales and use of public money. The findings bring insights to inform future scoring and assessment of application but also point to the broader

importance of equity of opportunity to apply, to regular training for scorers and support for applicants.

Funding acknowledgement

This research was commissioned by the Department of Health and Social Care through the NIHR Policy Research Programme.

5B.9 Remote consultations in primary care during covid-19: Views and experiences of healthcare professionals and patients

Presenter: Victoria Appleton

Co-authors: Victoria Appleton, Koser Khan,Prof Umesh Chauhan, Prof Nefyn Williams, Prof. Mark Gabbay, Prof. Tony Marson, Sandra Smith, Dr Kimberly Lazo, Dr Mark Goodall, Dr Pete Dixon, Dr Jennifer Downing

Institutions: University of Central Lancashire, University of Liverpool

Abstract

Problem

Covid-19 has created healthcare delivery challenges previously unseen. In the initial stages of the pandemic the rapid switch to remote consultations first was necessary to limit Covid-19 transmission and increase safety. Despite the limited understanding of its acceptability, effectiveness, and long-term impact on health inequalities. Remote consultations have continued due to covid-19 measures. However, almost two years into the pandemic, it is important to assess the impact of this natural experiment on the views of patients, particularly considering the consequences of a digital first approach to primary care access to populations with greater need, such as those with multimorbidity, disability or learning difficulties.

Approach

Approximately 10 patient and 10 professional participants will be invited to take part in a telephone interview, using a flexible topic guide to explore their views and experiences of remote consultations. The semi-structured interviews will be audio-recorded, transcribed verbatim and thematically analysed using Nvivo software. The approach will highlight particular patient cases of interest to explore equity of access and quality of care, which will describe different pathways through the system and will provide narrative examples to showcase benefits, disadvantages, barriers and facilitators related to the different consultation types. Healthcare professional interviews will also highlight experiences of new methods of triage and consultation and their views on the impact of these on patient access and quality of care.

Findings

Although the findings are to be determined, we expect that they will provide insight into some of the populations that are not as well represented in the survey, for example those unemployed, those who have struggled with technology, multiple long-term conditions, ethnic minority populations, disabled, learning difficulties etc. Implications of the findings will help to inform the development of future research targeted at marginalised populations where the impact of recent service changes are less well understood.

Consequences

The findings of our work will be shared with primary care practices to inform plans to implement e- and video-consulting in purposive quality improvement programmes post COVID-19, with particular reference to equity in access to healthcare. It will also enable learnings from service delivery during the pandemic to be shared, ensuring that positive changes are not lost.

Funding acknowledgement

ARC North West Coast

5C.1 Hows does treatment burden change over time among people with multimorbidity? A follow-up survey and evaluation of a single-item measure

Presenter: Simon DS Fraser

Co-authors: Hilda Hounkpatin, Paul Roderick, Scott Harris, James Morris, Dianna Smith, Bronagh Walsh, Helen Roberts, Hajira Dambha-Miller, Qian Yue Tan, Forbes Watson, Simon DS Fraser

Institutions: University of Southampton, NHS Dorset CCG

Abstract

Problem

Treatment burden is the workload of being a patient and its impact on wellbeing. Little is known about change in treatment burden over time for people with multimorbidity. The aim of this study was to quantify change in treatment burden, determine factors associated with this change, and evaluate a revised single-item measure for high treatment burden in older adults with multimorbidity.

Approach

A 2.5-year follow-up of a cross-sectional postal survey via six general practices in Dorset, England. GP practices identified participants of the baseline survey. Data on treatment burden (measured using the Multimorbidity Treatment Burden Questionnaire; MTBQ), sociodemographics, clinical variables, health literacy and financial resource were collected. Change in treatment burden was described, and associations assessed using regression models. Diagnostic test performance metrics evaluated the single-item measure relative to the MTBQ.

Findings

301 participants were recruited (77.6% response rate). Overall, there was a 2.6% increase in treatment burden. 98 (32.6%) and 53 (17.6%) participants experienced an increase and decrease, respectively, in treatment burden category. An increase in treatment burden was associated with having more than five long-term conditions (ß:8.26 (95% CI: 4.20 to 12.32) and living ≥10 minutes (vs <10 minutes) from the GP (aß:3.88 (95% CI: 1.32 to 6.43)), particularly for participants with limited health literacy (mean difference: aß:9.59 (95% CI: 2.17 to 17.00)). The single-item measure performed moderately with sensitivity: 56.5%; specificity: 92.5%, positive predictive value 66.0%, negative predictive value of 89.2%, positive likelihood ratio 7.53, negative likelihood ratio 0.47. ConclusionsTreatment burden changes over time for people with multimorbidity. Improving access to primary care, particularly for those living further away from services, and enhancing health literacy, may mitigate increases in burden.

Consequences

As the UK population ages, more people are living with several long-term health problems and need to manage their differing demands. This includes attending many appointments with different doctors and health professionals, taking several medications and making lifestyle changes. The workload and impact of doing these things has been called ‘treatment burden’. Some people may feel ‘overburdened’ by everything they have to do to look after their health, and this may lead to them not adhering to treatment plans. Our study suggests improving access to primary care, particularly for those living further away from services, and enhancing health literacy, may mitigate increases in this burden.

Funding acknowledgement

This study was funded by the NIHR Applied Research Collaboration (ARC) for Wessex

5C.2 Withdrawal of inhaled corticosteroids from COPD patients with mild or moderate airflow limitation in primary care: feasibility trial reveals high prevalence of suspected undiagnosed asthma

Presenter: Timothy Harries

Co-authors: Gill Gilworth, Christopher J Corrigan, Patrick B Murphy, Nicholas Hart, Mike Thomas, Patrick T White

Institutions: King's College London, University of Southampton

Abstract

Problem

Higher-dosage inhaled corticosteroids (ICS) are frequently prescribed outside guidelines to COPD patients with mild or moderate airflow limitation (FEV1 (forced expiratory volume in one second) ≥50% predicted) and low exacerbation risk, despite little evidence of benefit and risk of adverse effects.This trial aimed to explore the feasibility of withdrawing higher-dosage ICS therapy from eligible COPD patients with mild or moderate airflow limitation in primary care.

Approach

This was an open, feasibility trial in primary care. Outcome measures included the prevalence of suitable participants, the accuracy of their identification and their willingness to accept open randomisation to discontinue ICS therapy for up to six months with monitoring at baseline, three and six months.

Findings

392 (13%) of 2967 COPD patients from 20 primary care practices (209,618 total population) were identified as potentially eligible for ICS withdrawal by algorithm search of electronic records. Following individual record review, 243 (62%) of these were deemed ineligible because of (a) one severe or two moderate COPD exacerbations in the previous year (86, 22%); (b) severe airflow limitation (65, 17%); (c) asthma (15, 4%); (d) active cancer, dementia, palliative care, drug or alcohol dependence or being housebound (77, 20%). The remainder (149) were invited for assessment. 61 attended and all agreed to randomisation to ICS withdrawal or usual care. At baseline assessment, 10 exhibited significant reversibility at spirometry testing (FEV1 reversibility >12% and 200ml) which was a safety exclusion criterion, 2 had suffered two or more moderate COPD exacerbations, identifiable at interview only, in the prior year, 7 had severe airflow limitation and 2 had normal spirometry. 40 were randomised. Over the ensuing 6 months, 1 patient died of a cause unrelated to the study and another was lost to follow up. 18 (45%) of the 38 (10 withdrawal, 8 usual care) exhibited previously undocumented evidence of FEV1 variability consistent with asthma. This was supported by significant associations in the ICS withdrawal group between FEV1 variability and elevated fractional exhaled nitric oxide (FeNO) (p=0.04), history of atopy (p=0.01), elevated symptom score (p=0.04) and poorer quality of life (p=0.04).

Consequences

Open, randomised allocation of eligible patients to withdrawal of ICS therapy or usual care was acceptable. Retention at follow-up for 6 months was excellent. Identification of COPD patients with mild or moderate airflow limitation suitable for a trial of withdrawal of higher-dosage ICS therapy was difficult because of poor recording of suitability criteria (undocumented exacerbations and unreliable lung function). Nearly 50% of eligible participants with no previously recorded evidence of bronchodilator reversibility or past history of asthma demonstrated FEV1 variability suggestive of it. Primary care teams should be aware of the possibility of previously undiagnosed asthma

being uncovered in significant numbers of COPD patients whose treatment is reviewed.

Funding acknowledgement

T H Harries was supported by an NIHR Doctoral Research Fellowship

5C.3 Adaptation and content validation of a patient-reported measure of treatment burden for use in stroke survivors (PETS-stroke): results of a qualitative cognitive interview study

Presenter: Karen Wood

Co-authors: Karen Wood, Aleema Sardar, David T Eton, Frances S Mair, Lisa Kidd, Terence J Quinn

Institutions: Institute of Health and Wellbeing - University of Glasgow, Institute of Cardiovascular and Medical Sciences - University of Glasgow, School of Medicine, Dentistry and Nursing - University of Glasgow, Mayo Clinic - Rochester - US.

Abstract

Problem

Stroke survivors often live with significant treatment burden because of high healthcare workload or care deficiencies, which may negatively impact health outcomes. Measurement of treatment burden allows identification of those at high risk of burden and assessment of the effectiveness of interventions aimed at reducing it, however there is currently no validated patient-reported measure of treatment burden after stroke. Crucially, measures that have been developed for use in patients with other long-term conditions or multimorbidity omit important stroke-specific burdens. Our aim was to adapt the Patient Experience with Treatment and Self-Management (PETS) (version 2.0, English) patient-reported measure to create a stroke-specific measure (PETS-stroke), and to conduct content validity testing in a UK stroke survivor population.

Approach

PETS items were adapted to create PETS-stroke, using a previously developed conceptual model of treatment burden in stroke. Content validation involved three rounds of qualitative cognitive interviews with stroke survivors in Scotland recruited through stroke groups and primary care. Participants were asked for feedback on the importance/ relevance/ and clarity of the content of PETS-stroke. Framework analysis was used to explore responses and adapt the measure further. Interviews were conducted until no further changes to the measure were needed.

Findings

Interviews (n=15) resulted in changes to: wording of instructions/items; location of items; answer options; and recall period. The final PETS-stroke tool has 34-items, spanning 13 domains; 10 items unchanged from PETS, 6 new and 18 amended. Our findings suggest that the measure is best suited to measuring treatment burden in the first year after stroke, capturing the acute rehabilitative phase of recovery that is not sufficiently covered by existing PRMs.

Consequences

Our adapted stroke-specific treatment burden measure leverages the foundation of a previously developed and rigorously tested comprehensive general measure of treatment burden. PETS-stroke is now ready for further rigorous evaluation (construct validity and reliability testing) in a larger sample of stroke survivors. The development of a systematic method of quantifying treatment burden from the perspective of stroke survivors has the potential to aid the design and testing of tailored interventions aimed at lessening treatment burden.

Funding acknowledgement

Greater Glasgow and Clyde Endowment Fund GN19ST487 The Stroke Association Clinical Lectureship TSA LECT 2017_01

5C.4 What is the prevalence and clinical implications of frailty in middle-aged people with COPD?

Presenter: Peter Hanlon

Co-authors: Peter Hanlon, Jim Lewsey, Jennifer K Quint, Bhautesh D Jani, Barbara I Nicholl, David A McAllister, Frances S Mair.

Institutions: University of Glasgow, Imperial College London

Abstract

Problem

Frailty, a state of reduced physiological reserve, is common in people with chronic obstructive pulmonary disease (COPD). Frailty can occur at any age, however the implications in younger people (aged <65 years) with COPD is unclear. We assessed the prevalence of frailty in UK Biobank participants with COPD; explored relationships between frailty and FEV1; and quantified the association between frailty and adverse outcomes.

Approach

UK Biobank participants (n=3132, recruited 2006-2010) with COPD aged 40-70 years were analysed comparing two frailty measures (frailty phenotype and frailty index) at baseline. The frailty phenotype was based on five criteria (weakness, slow walking pace, weight loss, exhaustion and low physical activity; 0 criteria = robust, 1-2 = pre-frailty, 3 or more = frailty). The frailty index was a non-weighted count of 42 health deficits, scaled to between 0 and 1. Participants were categorized as robust (<0.12), mild (0.12-0.24), moderate (0.24-0.36) and severely (>0.36) frailty. Relationship with forced expiratory volume in 1 second (FEV1) was assessed for each measure. We assessed the relationship between frailty and mortality, Major Adverse Cardiovascular Event (MACE), all-cause hospitalization, hospitalisation with COPD exacerbation, and community COPD exacerbation over 8 years follow-up, adjusted for age, sex, socioeconomic status, smoking, alcohol and FEV1.

Findings

Frailty was common by both definitions. Using the frailty phenotype, 514 (17%) of participants with COPD were classified as frail, 1518 (48%) were pre-frail. Using the frailty index 872 (28%) had moderate frailty and 121 (4%) had severe frailty. The frailty phenotype, but not the frailty index, was associated with lower FEV1. Frailty phenotype [frail vs robust] was associated with mortality (hazard ratio 2.33; 95%CI 1.84-2.96), MACE (2.73; 1.66-4.49), hospitalisation (incidence rate ratio 3.39; 2.77-4.14), hospitalised exacerbation (5.19; 3.80-7.09), and community exacerbation (2.15; 1.81-2.54). The frailty index [severe vs robust] was also associated with each of these outcomes (mortality (2.65; 95%CI 1.75-4.02), MACE (6.76; 2.68-17.04), hospitalisation (3.69; 2.52-5.42), hospitalised exacerbation (4.26; 2.37-7.68), and community exacerbation (2.39; 1.74-3.28). Associations between frailty and each outcome were similar before and after adjusting for FEV1.

Consequences

Frailty, regardless of age or measure, identifies people with COPD at risk of adverse clinical outcomes. Associations between frailty and clinical outcomes also appear to be independent of COPD severity assessed using FEV1. Frailty assessment may aid risk stratification and guide targeted intervention in COPD and should not be limited to people aged >65 years.

Funding acknowledgement

Medical Research Council (Peter Hanlon, Grant reference: MR/S021949/1).

5C.5 COVID-19 and impact on people living with persistent pain and distress

Presenter: Noureen Shivji

Co-authors: Hollie Birkinshaw, Adam Geraghty, Helen Johnson, Tamar Pincus, Paul Little, Michael Moore, Beth Stuart, Carolyn A. Chew-Graham

Institutions: School of Medicine Keele University, Department of Psychology, Royal Holloway, University of London, Faculty of Medicine, University of Southampton, Midlands Partnership NHS Foundation Trust , NIHR Applied Research Collaboration (ARC) West Midlands

Abstract

Problem

Musculoskeletal pain impacts on people's quality of life, and is a common problem brought by patients to primary care consultations. Low mood and distress are commonly reported by people who have persistent musculoskeletal pain and may be labelled as 'depression'. Social restrictions, including the 'lockdown' and 'stay-at-home' guidance associated with the COVID-19 pandemic impacted on daily routines of people, and may have increased loneliness and social isolation. Social isolation increases the risk of depression, particularly in people living with persistent pain, as it is suggested that these people find it difficult to maintain their social relationships and activities, even in normal circumstances. We therefore, explored the impact of COVID-19 restrictions on the lives of people with persistent pain, their interactions with the health service and perspectives of GPs caring for this group of patients. This work is nested within a programme exploring how pain-related distress is conceptualised and managed by people with pain and general practitioners (GPs) in primary care consultations.

Approach

Qualitative methods with semi-structured interviews conducted via telephone or using virtual software (''Microsoft Teams''), explored how people with pain and GPs perceive pain-related distress, whether this is different from 'depression' and how have these been affected by COVID-19 restrictions. Multiple methods of recruitment were utilised, interviews were digitally recorded, transcribed with consent, and analysed thematically using constant comparison techniques. A patient advisory group and a GP stakeholder group contributed to the study design and data analysis.

Findings

Perspectives on how COVID-19 had impacted on people living with persistent pain varied. People who had experienced helplessness and despair when living with persistent pain, pre-pandemic described how these feelings had been amplified during COVID-19 restrictions, particularly feelings of low mood and social isolation. Other people described that the restrictions had allowed them to pace themselves, and restrict activity, resulting reduction in pain and distress. GPs described the impact of remote consulting on consultations with this group of patients, highlighting the importance of continuity of care and establishing a patient-doctor relationship, particularly for those with complex needs. They specifically valued these aspects within a GP consultation, in promoting personalised and holistic care and suggested that remote consulting might be easier and more effective with this group of patients, once the relationship is already established.

Consequences

Findings related to the impact of COVID-19 restrictions on the lives of people with persistent pain imply that those people with a previous history of low mood and depression may require more help than they did before the pandemic to manage pain-related distress. There is a need to pay attention to the quality and accessibility of remote consulting within primary care keeping in mind the importance of relationship and continuity of care in those with long-term conditions.

Funding acknowledgement

The De-STRESS pain study is funded by Versus Arthritis

5C.6 Severe mental illness among adults with atopic eczema or psoriasis: UK population-based matched cohort studies

Presenter: Elizabeth Adesanya

Co-authors: Alasdair Henderson, Julian Matthewman, Ketaki Bhate, Joseph Hayes, Amy Mulick, Rohini Mathur, Catherine Smith, Helena Carreira, Sujit D Rathod, Sinéad M Langan, Kathryn E Mansfield

Institutions: London School of Hygiene & Tropical Medicine, University College London, Guys and St Thomas' Foundation Trust and King's College London

Abstract

Problem

Existing research exploring the association between atopic eczema or psoriasis, and severe mental illness (i.e., schizophrenia, bipolar disorder, and other psychotic disorders) is limited. Longitudinal evidence for the association is particularly scarce, especially in adults, therefore the direction of the relationship between atopic eczema or psoriasis and severe mental illness is unclear. We aimed to investigate the effect of atopic eczema or psoriasis on the risk of incident severe mental illness among adults in the UK.

Approach

We conducted matched cohort studies using primary care electronic health data collected between January 1997 and January 2020 from the UK Clinical Practice Research Datalink. We identified two cohorts: one including adults (≥18 years) with and without atopic eczema, and one including adults with and without psoriasis. Adults with atopic eczema or psoriasis were identified using validated algorithms and matched on age, sex, and general practice with up to five adults without atopic eczema or psoriasis. We used Cox regression stratified by matched set to estimate hazard ratios (HRs) comparing the risk of incident severe mental illness in adults with and without atopic eczema or psoriasis. We initially constructed crude models including only the main exposure variable (atopic eczema or psoriasis) and implicitly adjusted for matching variables. In sequential models we adjusted for potential confounders (socioeconomic deprivation, calendar period) and then additionally adjusted for potential mediators (comorbidities, harmful alcohol use, smoking status and body mass index, and, in atopic eczema only, problems with sleep and high-dose glucocorticoid use).

Findings

We identified 1,023,232 adults with atopic eczema matched to 4,908,059 without, and 363,210 adults with psoriasis matched to 1,801,875 without. Median follow up was 5.2 years (IQR 2.0-10.2) in the atopic eczema cohort and 6.0 years (IQR 2.4-11.6) in the psoriasis cohort. After adjusting for potential confounders, both atopic eczema and psoriasis were associated with at least a 17% increased risk of severe mental illness (atopic eczema: HR 1.17, 95% CI 1.12-1.22; psoriasis: HR 1.26, 95% CI 1.18-1.35). Additionally adjusting for potential mediators attenuated severe mental illness risk in both cohorts

(atopic eczema: HR 1.01, 95% CI 0.96-1.07; psoriasis: HR 1.13, 95% CI 1.04-1.22).

Consequences

Our findings suggest adults with atopic eczema or psoriasis are at increased risk of severe mental illness compared to adults without atopic eczema or psoriasis, although this increased risk may be explained by mediating factors (i.e., problems with sleep or lifestyle factors). This research highlights the potential importance of monitoring mental health status in adults with atopic eczema or psoriasis. Future studies should aim to identify specific modifiable factors that could be targeted to reduce severe mental illness in adults with atopic eczema or psoriasis.

Funding acknowledgement

EA was funded by a British Skin Foundation (BSF) PhD studentship (Reference: 024/S/18). SML was supported by a Wellcome Trust Senior Research Fellowship in Clinical Science (205039/Z/16/Z).

5C.7 How effective are educational, behavioural, and cognitive interventions for adults with chronic migraine?

Presenter: Aiva Aksentyte, Natasha Davies

Co-authors: Natasha Davies, Mariam Ratna, Martin Underwood

Institutions: Warwick Medical School, University of Warwick

Abstract

Problem

Around 3% of general practitioner consultations are for headaches. In epidemiological studies, 2-4% of adults have chronic headaches, primarily chronic migraine - a severely disabling condition, affecting people's careers, psychological wellbeing, and general health. The vast majority of those affected are managed exclusively in primary care. The annual medical cost for chronic migraine is 4.8 times higher than for episodic migraine. Medications are used prophylactically and to relieve symptoms, however, they are not always effective. Non-pharmacological interventions may complement existing therapies, enabling individuals to recognise and manage triggers, and use medication safely. We evaluated the effects of educational, behavioural, and cognitive interventions, on headache frequency, disability, pain intensity, quality of life, psychological wellbeing, and medication consumption.

Approach

We did a systematic review, searching Cochrane, Embase, Medline, PsychINFO, Scopus, and Web of Science for randomised controlled trials assessing the effectiveness of educational, behavioural, and cognitive interventions for chronic migraine in adult populations when compared against usual care. We assessed trials using the Cochrane Handbook for Systematic Reviews and extracted data on relevant outcomes at baseline and follow-up.

Findings

Five trials (N=240) met our inclusion criteria; one educational, two psycho-educational and two behavioural interventions, none were done in primary care. Participants were predominantly female (83.3-100%), aged 30-43 years. For headache frequency reduction, evidence was found in one behavioural intervention trial at six weeks (p=.01); headache-related disability was significantly lower after an educational intervention at six months (p<.05), and a psycho-educational intervention at four months (95% CI: -1.27, -0.08); severity of symptoms was reduced following one behavioural intervention at six weeks (p=.001); one psycho-educational intervention reported borderline significance for improving the quality of life at seven weeks (p=.049); for medication consumption,

one educational and one behavioural intervention showed reductions at follow-up.

Consequences

We found some weak evidence for the effectiveness of educational, behavioural, and psycho-educational interventions in reducing headache frequency, headache-related disability, and pain intensity. Additionally, headache-related disability could be reduced even when headache frequency remained the same when using a psycho-educational intervention, highlighting that the two variables are not co-dependent. Self-help interventions could be valuable tools aimed at targeting the ability to function with pain, but more robust primary-care based studies are needed. The International Classification of Headache Disorders criteria for chronic migraines is strict, requiring individuals to have 15 headaches a month, with eight migraines for longer than three months. Therefore, very few studies could be included in our analysis. For many people, headache frequency can fluctuate below 15 a month, so we suggest that a broader definition may be more practical for treating patients and recruiting them for research. Chronic migraine is a disabling condition, and more high quality, primary care research is needed to improve headache-related outcomes for individuals with chronic migraine.

Funding acknowledgement

No funding was received for the study.

5C.9 Addressing distress in people with persistent musculoskeletal pain: A qualitative study to inform intervention development.

Presenter: Adam W A Geraghty

Co-authors: Carolyn A. Chew-Graham, Noureen Shivji, Tamar Pincus, Helen Johnson, Paul Little, Michael Moore, Beth Stuart, Adam W A Geraghty.

Institutions: Department of Psychology, Royal Holloway University of London, School of Medicine, Keele University, Faculty of Medicine, University of Southampton, Midlands Partnership NHS Foundation Trust, NIHR Applied Research Collaboration (ARC) West Midlands

Abstract

Problem

Musculoskeletal pain is one of the most common presentations in primary care. People with persistent musculoskeletal pain often experience low mood and distress, which is frequently labelled as depression. However, research has found that pain-related distress is qualitatively different to depression; distress is directly associated with the pain and its impact upon daily life. Previous qualitative analysis has identified that pain-related distress in people with musculoskeletal pain is primarily facilitated by uncertainty regarding the pain both currently and in the future, feeling stuck, and a lack of support. The De-STRESS pain study aims to develop an intervention to address pain-related distress in people with persistent musculoskeletal pain. In this qualitative study, key factors that should be included in an intervention were explored.

Approach

Semi-structured interviews were conducted either by telephone or over Microsoft Teams with both people living with persistent

musculoskeletal pain and general practitioners (GPs.) The topic guide was developed iteratively as data collection progressed. The interviews explored participants' views and recommendations of key components that should comprise an intervention to address distress in people with persistent musculoskeletal pain. Interviews were recorded, transcribed, and analysed using thematic analysis and constant comparison techniques. A Patient and Public Involvement and Engagement group contributed to the interpretation of the findings.

Findings

Twenty-one people with persistent musculoskeletal pain and 21 GPs were interviewed. The key components discussed by participants were 1) integration and collaboration with a healthcare professional, and 2) communication, support and interaction with other people experiencing pain and distress. Firstly, both GPs and people with musculoskeletal pain emphasised the need for the intervention to be supported by a clinician, although this could be with a specialist nurse or first contact physiotherapist, rather than a GP. For people with pain, this integration would facilitate a sense of trustworthiness and being looked after in primary care, whilst for GPs, this allowed them to be aware of and involved in the patients' care despite having limited capacity. Secondly, people with pain emphasised the benefit that would come from being able to talk to others in a similar situation, and that the ability to share not only uncertainties and worries, but also positive strategies learnt through experience would assist in reducing distress associated with pain.

Consequences

The findings of this qualitative study emphasise the role of support both from clinicians and other people with pain in addressing pain-related distress. These will be a core basis on which the De-STRESS pain intervention will be developed.

5D.1 GP Practice Variation in Potentially Inappropriate Prescribing in Middle-Aged Adults: A Repeated Cross-Sectional Study

Presenter: Reeza Khan

Co-authors: Ryan Jayesinghe, Frank Moriarty, Stevo Durbaba, Mark Ashworth, Patrick Redmond

Institutions: King's College London, RCSI University of Medicine and Health Sciences

Abstract

Problem

Potentially inappropriate prescribing (PIP) in primary care has been linked to adverse outcomes for patients. Despite similar rates of PIP amongst middle-aged and older adults, there is little literature focussed on the former. PIP is not evenly distributed in the population; a number of studies have identified factors such as age, sex, polypharmacy and socioeconomic status that influence PIP in both older and middle-aged adults. However, there is little known about practice-level factors that may influence PIP, particularly in middle-aged adults.The objective of this study is to estimate between-practice variation in PIP and evaluate patient and GP practice characteristics that influence this.

Approach

A repeated cross-sectional study using the Lambeth DataNet. Participants are registered patients aged 45-64 years old who have been prescribed at least one medication from 2014-2019. The primary outcome is prevalence of PIP, identified using the PROMPT (PRescribing Optimally in Middle-aged People's Treatment) criteria. Measures of variation in PIP between

practices will be quantified (systematic coefficient of variation) and multilevel negative binomial regression models used to examine patient and practice level variables to explain variation in prescribing (e.g. Quality Outcome Frameworks (QOF) achievements, presence of practice-based pharmacists, training practice etc).

Findings

The study sample included 44,082 participants from 40 GP practices of 360 individual GPs in 2019. This included one dispensing practice and 18 teaching practices. The mean QOF score was 534 (lowest: 467, highest: 558, maximum achievable: 559). The most common ethnicity was White (51%), followed by Black/African/Caribbean/Black British (32%) and Asian/Asian British (8%). 52% of participants suffered from multimorbidity, 28% had polypharmacy and there was a mean Index of Multiple Deprivation (IMD) decile of 3.91. Prevalence of PIP was 18.18% in 2019, with the PIP criterion of the use of two or more drugs from the same pharmacological class being the most common. Analysis of variation and explanatory variables is now underway.

Consequences

This is the first study to evaluate practice level factors that influence prevalence of PIP in middle-aged adults. By doing so, causes of variation in PIP can be determined. This will aid further development of effective and targeted interventions for medicines optimisation, resulting in safer care for patients.

Funding acknowledgement

No funding required.

5D.2 Process evaluation of the SPPiRE trial: a GP delivered medication review of polypharmacy, deprescribing and patient priorities in older people with multimorbidity

Presenter: Caroline McCarthy

Co-authors: Caroline McCarthy (1), Ivana Pericin (2), Susan M Smith (1,3), Bridget Kiely (1), Barbara Clyne (1)

Institutions: 1) HRB Centre for Primary Care Research, Department of General Practice, RCSI University of Medicine and Health Sciences, Dublin 2 2) School of Social Work and Social Policy, Trinity College Dublin, Dublin 2 3) Department of Public Health and Primary Care, Trinity College, Dublin 2

Abstract

Problem

More evidence based interventions are needed to improve outcomes for the growing population of older people living with multimorbidity and polypharmacy. The Supporting Prescribing in Older Patients with Multimorbidity in Primary Care (SPPiRE) intervention incorporated professional education and a web guided GP-delivered medication review focusing on potentially inappropriate prescribing (PIP) and deprescribing, and addressed patient treatment priorities. The SPPiRE cluster randomised controlled trial targeted patients aged ≥65 years and prescribed ≥15 repeat medicines in Irish primary care. SPPiRE reported a significant but small effect in reducing the number of medicines (incidence rate ratio 0.95, 95% CI; 0.899-0.999, p=0.045), but had no effect on PIP. The aim of the SPPiRE process evaluation was to explore intervention implementation, participant experiences and the potential for system wide implementation.

Approach

SPPiRE was set in 51 general practices throughout Ireland, who recruited 404 participants with multimorbidity aged ≥65 years, prescribed ≥15 medicines. The process evaluation used mixed methods. Quantitative data on SPPiRE reviews for intervention patients was collected from the SPPiRE website. Qualitative data was collected with purposive samples of intervention GPs (18/26) and patients (27/208) via semi-structured telephone interviews. All interviews were transcribed verbatim and analysed thematically.

Findings

Despite standardised training, intervention delivery varied among GPs; 163 of 208 (78.4%) intervention patients had a SPPiRE medication review, the most common reason for not having a review was insufficient GP time. GPs recorded at least one PIP in 130 of patients who had a medication review (79.8%), with a mean of 1.79 (SD1.4) PIP per patient. By comparison at least one PIP was identified in 92.3% of intervention patients by the blinded pharmacist at baseline outcome assessment, with a mean of 2.49 PIP (SD1.6) per patient. Medication changes were recorded in 96 of 282 (34%) PIP identified by GPs. GPs felt it easier to change medicines if the patient was well known to them and more difficult if the medicine had been initiated elsewhere. GPs identified 226 different priorities with 128 patients (78.5%), most commonly treating pain and other symptoms and this process resulted in medication change(s) in 51 patients (31.3%). GPs and patients had mixed views on the usefulness of assessing patient treatment priorities, but overall patients felt reassured and GPs felt a routine medication review for these patients would be beneficial but lack of integration into practice software systems and resources were identified as barriers to future implementation.

Consequences

GPs deprescribed a small but significant number of medicines but they identified less PIP than the pharmacist, which may explain the lack of effect seen on PIP in the main trial. GPs and patients viewed the intervention positively, but implementation will depend on resourcing and integration into practice management systems.

Funding acknowledgement

This research is funded by the Health Research Board Primary Care Clinical Trials Network (CTN-2014-011).

5D.3 Systematic review of clinical practice guidelines for acne vulgaris published between January 2017 and July 2021

Presenter: Louise Corcoran

Co-authors: Beth Stuart, Alison M Layton, Nick Francis, Ingrid Muller, Mark Lown, Gwennan Rucinski, Viktoria Venkatess, Anicka Sufraz, Miriam Santer

Institutions: Southampton Primary Care Research Centre; Hull York Medical School

Abstract

Problem

Acne is a common inflammatory skin condition, which can be associated with an increased risk of mental health conditions including depression. Effective treatment is essential to prevent physical sequelae. Treatment regimens frequently involve topical or oral antibiotics, but rising levels of antibiotic resistance necessitates regular review of prescribed therapies.The aims of this project are:

o to update the systematic review of acne clinical practice guidelines published in 2017

o to critically appraise reporting of acne guidelines using AGREE II (Appraisal of Guidelines for Research and Evaluation Reporting) checklist

o to examine guidance on acne treatments, particularly recommendations around oral antibiotic use

Approach

We systematically searched for acne guidelines from 01 January 2017 to 31 July 2021 using: MEDLINE, Embase, Google Scholar, LILACS. We supplemented this by searching a guideline-specific depository and checking for updates to guidelines included in the 2017 review. There were no language restrictions, and guidelines not in English were translated prior to assessment and data extraction. We excluded guidelines that focussed on a single intervention, conference abstracts, editorials, letters or regional adaptations of guidelines. A critical appraisal of guideline quality was completed using the AGREE II checklist. We extracted recommendations from all guidelines that met inclusion criteria regardless of quality score. Data on recommendations of pre-specified treatments of interest were also extracted and analysed.

Findings

Ten guidelines fulfilled eligibility criteria, including the first NICE guideline on acne. AGREE II scores were substantially improved since the 2017 review of acne guidelines, suggesting increased rigour in guideline development and reporting. Recommendations within guidelines for first-line treatments (topical treatments) were hampered by lack of consistency in outcome reporting between trials. Comparisons of recommendations between guidelines were also challenged by differing definitions of mild, moderate or severe acne.The indications for commencing oral antibiotics varied between guidelines (e.g. 'truncal acne', 'mild/moderate acne resistant to treatment' or 'severe papulopustular acne'), and recommendations for maximum duration of treatment varied from 3 to 6 months. All of the guidelines advocated second generation tetracyclines as first line oral antibiotic at a similar dose and recommended co-prescribing non-antibiotic topical treatment alongside oral antibiotics. All guidelines advocated second generation tetracyclines as first line oral antibiotic at a similar dose, except two that were unclear on this point. Several guidelines recommended that non-specialists with appropriate experience could initiate oral isotretinoin.

Consequences

The results from this systematic review can be used to guide clinicians and raise awareness of differing recommendations on the treatment of acne. All guidelines agree on the importance of co-prescribing a non-antibiotic topical agent with an oral antibiotic, as well as limiting the duration of treatment with oral antibiotics. This review also highlights variations in access to non-antibiotic treatments.

5D.4 An external pilot cluster randomised controlled trial of a theory-based intervention to improve appropriate polypharmacy in older people in primary care (PolyPrime)

Presenter: Carmel Hughes

Co-authors: Prof Carmel Hughes, Audrey Rankin, Ashleigh Gorman, Judith Cole, Cristín Ryan, Cathal A. Cadogan, Heather E. Barry, Ashley Agus, Danielle Logan, Cliona McDowell, Gerard J. Molloy, Claire Leathem, Marina Maxwell, Connie Brennan, Gerard J. Gormley, Alan Fer

Institutions: Queen's University Belfast, Trinity College Dublin, Northern Ireland Clinical Trials

Unit, National University of Ireland Galway, Northern Ireland Clinical Research Network (Primary Care), Public Involvement Enhancing Research, Donegal Volunteer Centre, Royal College of Surgeons in Ireland

Abstract

Problem

For older populations with multimorbidity, polypharmacy (use of multiple medications) is standard practice. The key challenge is ensuring appropriate polypharmacy (as opposed to inappropriate polypharmacy). PolyPrime is a theory-based intervention that has been developed to enhance appropriate polypharmacy in older people in primary care. This pilot study aims to assess the feasibility of the PolyPrime intervention in primary care in Northern Ireland (NI) and the Republic of Ireland (ROI).

Approach

This external pilot cluster randomised controlled trial (cRCT) aimed to recruit 12 GP practices (six in NI and six in the ROI counties that border NI) and ten older patients receiving polypharmacy (≥4 medications) per GP practice (n=120). GP practices randomly allocated to the intervention arm watched an online video (which demonstrated how GPs could improve appropriate polypharmacy during consultations with older patients) and scheduled medication reviews with patients on two occasions: an initial review and a 6-month follow-up appointment. GP practices allocated to the control arm continued to provide usual care to patients without further input. The study assessed the feasibility of recruitment, retention and collecting GP record (medication appropriateness, health service use) and self-report patient (quality of life, health service use) data. Pre-specified progression criteria based on recruitment and retention of GPs and patients, and completeness of outcome data were used to determine whether to proceed to a definitive cRCT or if further modifications were warranted.

Findings

All progression criteria were met (two 'Go' and three 'Amend' criteria). Twelve GP practices were recruited (Go: ≥10 GP practices recruited to take part in ≤6-months) and randomised into intervention or control arms. Three practices subsequently withdrew from the study, stating pressures caused by the COVID-19 pandemic as the main reason (Amend: 6-9 GP practices retained for the required period). Sixty-eight patients were recruited (Amend: 60–95 patients recruited within 5-months), with 24 patients in intervention practices receiving both an initial and follow-up medication review. Forty-seven (69.1%) patients were retained (i.e. had GP record data available for primary outcome analysis at 9-months) until the end of the study (Amend: 50–79% of patients retained for the required period). GP record data were available for 56, 49 and 47 (all 100%) patients at baseline, 6-months and 9-months, respectively. All self-report patient data were available for 66 (97%), 47 (92%) and 47 (96%) patients at baseline, 6-months and 9-months, respectively (Go: ≥80% of each patient self-report and GP-reported outcome measure is complete).

Consequences

Despite challenges faced due to the COVID-19 pandemic, this study has demonstrated that it is feasible to conduct a theory-based intervention aimed at improving appropriate polypharmacy in older people in primary care across two healthcare jurisdictions. A future definitive cRCT will explore the effectiveness of the intervention.

Funding acknowledgement

This study is funded by the HSC R&D Division Cross-border Healthcare 528 Intervention Trials in Ireland Network (CHITIN) programme, funded by the European Union's INTERREG VA

Programme, managed by the Special EU Programmes Body (SEUPB) project reference C

5D.5 The association between continuity of primary care and both initiation and adherence of common cardiovascular medications

Presenter: Rupert Payne

Co-authors: Peter Tammes, Chris Salisbury, Richard Morris, Rupert Payne

Institutions: University of Bristol

Abstract

Problem

Longitudinal continuity of primary care, and prescribing of and adherence to medication, are both crucial aspects of primary healthcare, but the relationship between them has not previously been studied in detail. This study tested the primary hypothesis that better continuity of care is associated with increased prescribing of clinically relevant medication and improved medication adherence, and the secondary hypothesis that perfect continuity is less strongly associated with prescribing and adherence than good continuity.

Approach

We used a random sample of 300,000 patients aged 30+ in 2017 within 83 English GP practices from the Clinical Practice Research Datalink. The hypotheses were tested in patients in five specific cardiovascular-related therapeutic areas. Adjusted associations between continuity of care, medication use, and adherence were examined using logistic regression. Continuity of Care index was calculated for 173,993 patients with 4+ GP consultations two years prior to their index date and divided into five categories: absence of continuity, below-average, average, above-average and perfect continuity. Medication usage outcomes were calculated for both initiation and adherence for statins (primary or secondary prevention separately), anticoagulants, antiplatelet agents, and antihypertensives. Adherence was estimated as medication possession ratio >80%.

Findings

There was strong evidence ($p<0.01$) that initiation of cardiovascular medications varied with continuity of care. Patients with absent continuity were less likely to be prescribed cardiovascular medications than patients with above-average continuity (statin primary prevention OR 0.71, 95%CI 0.59-0.85; statin secondary prevention 0.77, 0.57-1.03; antiplatelets 0.55, 0.33-0.92; antihypertension 0.51, 0.40-0.65). Similar findings were observed for those with below-average continuity (statin primary prevention OR 0.90, 95%CI 0.81-1.00; anticoagulants 0.79, 0.68-0.92; antihypertension 0.69, 0.61-0.78) or average continuity (antihypertension 0.89, 083-0.97). Patients with perfect continuity were more likely to be prescribed cardiovascular medications than those with above-average (statins primary prevention OR 1.23, 95%CI 1.01-1.49; statin secondary prevention 1.36, 1.10-1.71; antiplatelets 1.38, 1.08-1.74; antihypertension 1.10, 0.99-1.23).In contrast, continuity of care was generally not associated with medication adherence, although there was modest evidence ($p=0.03$) that adherence to statins for secondary prevention varied with continuity; patients with average continuity showed poorer adherence than above-average continuity (OR 0.74, 95%CI 0.60-0.94).

Consequences

Better continuity of care may increase prescribing of appropriate medication for patients at higher risk of cardiovascular disease, but is only weakly associated with patients' adherence to these medications.

Funding acknowledgement

Funded by NIHR School for Primary Care Research

5D.6 Does a feedback intervention support practices in improving prescribing for older people with reduced creatinine clearance? A feasibility study.

Presenter: Su Wood

Co-authors: S. Wood (1), R. Foy (1), D. Petty (2), P. Carder (3), S. Johnson (3), S. Alderson (1)

Institutions: (1) Leeds University Academic Unit of Primary Care, (2) Bradford University School of Pharmacy, (3) West Yorkshire Research and Development

Abstract

Problem

Kidney function reduces with age, increasing risk of harm from raised blood levels of many medicines. Prescribing recommendations when creatinine clearance is reduced are inconsistently implemented for older people in general practice, with 25% of patients aged ≥65yrs prescribed an average of two drugs where the kidney function was too low for recommended use, and 70 different drugs involved. It is not easy for prescribers to think about kidney function when prescribing, or to calculate and apply creatinine clearance when prescribing for older people and high-risk groups, or know which drugs are affected.We assessed the feasibility and acceptability of feedback to support safe prescribing of medicines for older people when kidney function is reduced.

Approach

We collected anonymous data on creatinine clearance from the seven general practices within two primary care networks (PCNs) to assess prescribing appropriateness for example drug groups (direct oral anticoagulants, anti-diabetics, and antibiotics) in patients aged ≥75yrs. We used these data in delivering bimonthly three evidence-based feedback reports to practices, and to assess change over time.We observed how PCNs and general practices received and used feedback. Semi-structured interviews explored experiences of feedback, guided by Clinical Performance Feedback Intervention Theory.

Findings

Initial findings indicate participants were interested in the feedback reports and saw them as important. In both PCNs the pharmacy teams were central to the response, undertaking all practice medication reviews.Scripts for prescribers, developed by our Public Patient Involvement group to help consultations with patients about their medicines and level of kidney function, and shared in the reports, were considered helpful.Interim analysis suggests an overall increase in recent creatinine clearance coding when key drugs are prescribed. However, getting the data to find patients at risk from their medicines because of their reduced kidney function is complex and challenging for prescribers.

Consequences

This feedback intervention engaged PCNs and practices. It raised awareness of the need to routinely calculate creatinine clearance, and of prescribing recommendations for many drugs when kidney function is reduced. Reducing risks associated with reduced creatinine clearance can decrease adverse drug reactions, hospitalisations, mortality and cost, especially for older patients.Routine calculation and coding of creatinine clearance would mean it is available for prescribing decisions and at-risk patients can be found by searches. This study provides evidence to improve functionality for timely calculation of creatinine clearance and coding at the time of kidney function test results coming into practice. Insights into feasibility of feedback

on prescribing and kidney function within general practice will inform a future large-scale trial, and how best to help prescribers apply the recommendations for prescribing when kidney function is reduced, reducing the risk of harm.

Funding acknowledgement

This research was funded by Pharmacy Research UK (Grant No PRUK-2020-GA10-SW) and the Scientific Foundation Board of the Royal College of General Practitioners (Grant No SFB 2020-16)

5D.7 Association of GP Burnout with increased Prescribing of Strong Opioids and Antibiotics

Presenter: Alex Hodkinson

Co-authors: Salwa S Zghebi, Evangelos Kontopantelis, Christos Grigoroglou, Mark Hann, Darren Ashcroft, Aneez Esmail, Carolyn Chew-Graham, Rupert Payne, Paul Little, Simon de Lusignan, Maria Panagioti

Institutions: University of Manchester, Keele University, University of Bristol, University of Southampton, University of Oxford

Abstract

Problem

The rise in prescriptions of strong opioids in the UK and globally has led to concerns of an epidemic crisis, and a recent review by Public Health England indicated that at least 20% of antibiotics prescribed in primary care in England were inappropriate. There is increasing evidence internationally that the wellbeing of physicians including GPs is associated with poor quality of care outcomes including medication and prescription errors. A key marker of health care staff well-being is 'burnout' and the closely related characteristics that associate with burnout include depersonalisation, turnover intention, career regret and job dissatisfaction. Due to lack of awareness regarding the impacts GP burnout and wellbeing might have on the individual healthcare system, in this study we aim to assess which characteristics of general practices are associated with markers of suboptimal patient care focusing on the volume/potentially hazardous prescribing of strong opioids and antibiotics using data from the RCGP Research and Surveillance Centre (RSC).

Approach

A retrospective cohort study linking patient prescribing data from the RCGP RSC with GP responses from December 2020 to April 2021. All patients aged 18 years and over with any indication of chronic pain whilst being prescribed strong opioids and patients with any acute lower respiratory tract infection being prescribed antibiotics. Burnout was measured using the Maslach Burnout Inventory. Logistic regressions assessed the relationship between high-level GP burnout with individual prescribing and patient-level factors.

Findings

In 40,227 patients (13,483 users of strong opioids and 26,744 users of antibiotics) from the RCGP RSC linked to 57 practices and 620 GPs; logistic regressions for opioid prescribing, showed that GPs with a high level of burnout were significantly associated with greater prescribing (OR=1.82, 95%CI 1.32 to 2.52) in patients aged 40 or below compared with middle aged patients between 40 to 60 (OR=0.63, 95%CI 0.49 to 0.81), in male patients compared to female patients (OR=0.45, 95%CI 0.14 to 0.86), more deprived patients (OR=0.43, 95%CI 0.24 to 0.57) and practices based in the north-west region of England (OR=2.17, 95%CI 1.46 to 3.42). For antibiotic use, there was a greater association of high GP burnout with greater prescribing (OR=1.58, 95%CI 1.13 to 2.22) in patients aged below 40 compared with middle aged patients (OR=0.51, 95%CI 0.39 to 0.68), and in practices based in the north-east and

Yorkshire region of England (OR=1.42, 95%CI 1.19 to 1.83).

Consequences

Greater prescribing of strong opioids and antibiotics was associated with high burnout amongst GPs in practices in England. This association for opioids was strongest in younger deprived male patients living the North-West region of England, and for antibiotics it was strongest in patients below the age of 40 and living in the North-East and Yorkshire region of England. Similar efforts, but directly linking GP responses with patient care, would help to better understand which individual GP factors are most associated with strong opioid and antibiotic prescribing in the UK.

Funding acknowledgement

National Institute for Health Research (NIHR) Research Capability Fund held by Greater Manchester Mental Health NHS Foundation Trust

5D.8 Validation of a framework to support the design and evaluation of pharmacy-led medicines optimisation in care homes: a mixed methods online survey

Presenter: Rosie Dunn

Co-authors: Andrea Hilton, Ian Maidment, Nichola Seare, Hemant Patel

Institutions: University of Hull, Aston University, NHS Black Country & West Birmingham CCGs

Abstract

Problem

Nearly half a million people are living in care homes in the UK, around 70% of which have dementia and high levels of multimorbidity. Older people are the major users of medication. In the last 20 years, there has been a dramatic increase in the prevalence of polypharmacy with the number of older people taking five or more medicines increasing from 12% to nearly 50%. Therefore, an initiative was undertaken to develop a framework to support pharmacist-led medicines optimisation within care homes. The framework was locally validated by a range of health care professionals (see Hilton et al., 2020, p.12-13: https://sapc.ac.uk/sites/default/files/asm_20_abstract_book2.pdf. Reviewers were asked to rate elements of the draft framework for inclusion, and suggest any changes that should be added to the next draft framework. The framework was revised based on this feedback and used to inform the current study.The aim of this research is to validate the existing framework nationally across the UK. There were three objectives:1. Develop, pilot and launch an online survey2. Analyse the survey data3. Revise and validate the framework based from the survey data

Approach

Health and social care professionals working in UK care homes were invited to participate in an online survey, which included a range of closed and open-ended questions based on the contents of the framework. A mixed-methods, results-based, convergent synthesis design was adopted, where quantitative and qualitative data were collected simultaneously and integrated in the analysis. Convenience sampling, using a cascading, snowballing method, was used; data was collected between 5th November 2020 and 16th March 2021. Content Validity Index (CVI) was used to ascertain the validity of the framework. Theoretical thematic analysis was used to analyse participants' comments on the framework.

Findings

100 health and social care home professionals completed the survey. Overall the framework scored highly on the Scale-Content Validity

Index/Average (S-CVI = 0.87). Qualitative data revealed areas of strong agreement, as well as areas of improvement of the framework, including; 1. Who to involve prior to a medicine's optimisation review; 2. Having a range of training methods; 3. The process of what to include when completing a review and 4. Who should receive and review recommendations made by the review. The feedback was used to revise and improve the framework.

Consequences

This validated and revised framework could be used as a way to standardise practice and improve medicines optimisation in care homes. Further work is needed to embed the framework within practice and evaluate the use clinically to improve medicines optimisation.

Funding acknowledgement

NHS Wolverhampton

5D.9 Do pharmacists actively influence prescribing in UK general practice? An online survey

Presenter: Mary Carter

Co-authors: Mary Carter (1), Sarah Chapman (1), Philip Rogers (1), Margaret Watson (2)

Institutions: University of Bath (1), University of Strathclyde (2)

Abstract

Problem

Although prescribers in general practice have access to wide range of clinical guidelines, they do not always follow them. Some variation in prescribing may be expected, since evidence-based guidelines do not apply in all scenarios, but previous studies have found that some variation is clinically unwarranted and associated with suboptimal patient outcomes. Part of the impetus for including pharmacists in general practice teams is to promote rational prescribing. Previous examples show that pharmacists contribute to effective Audit and Feedback (A&F) interventions in primary healthcare settings, but little is known about the extent to which and how they currently influence evidence-based prescribing in UK general practice. The aim of this cross-sectional study was to determine pharmacists' current involvement in influencing prescribing in UK general practice. The objectives were to investigate: • The range of tasks undertaken by pharmacists, focussing on activities promoting evidence-based prescribing • Pharmacists' beliefs about their influence on prescribing • Pharmacists' involvement with A&F to influence prescribing

Approach

The study comprised an online survey including 37 questions, informed by the literature and piloted with eight general practice-based pharmacists. The target respondents were pharmacists working in UK general practices. Multiple choice and free-text questions focussed on pharmacists' attitudes to and perceived influence on prescribing, use and evaluation of guidelines, engagement with A&F. The link to the survey on JISC OnlineSurveys© was disseminated via social media e.g., Twitter©, pharmacist-relevant websites. The survey was undertaken in Autumn 2021. Survey response data was exported to IBM SPSS v26© for screening and analysis. Descriptive statistics and frequencies were produced, and non-parametric tests employed to assess differences where descriptive results indicated this might be applicable.

Findings

Of 155 respondents, most were from southern England and employed by primary care networks (PCNs). Most had 2-5 years' general practice experience and identified 'influencing' tasks among their responsibilities, e.g., prescribing audits (80.1%), education for colleagues (69%).

Pharmacists working in PCNs were more likely to conduct prescribing audits). 76.2% of respondents reported that they were confident about influencing prescribing. Greater confidence was associated with training, use of A&F and positive attitudes towards guidelines.

Consequences

Some of the many tasks undertaken by pharmacists present an opportunity for them to promote evidence-based prescribing in general practice. Despite extensive evidence of the effectiveness of A&F in modifying prescribing behaviour, few respondents reported formal engagement with this method as part of their practice role. Learning opportunities focussed on A&F and general practice configurations in which pharmacists work with colleagues from the same professional background may strengthen the practice pharmacist role in promoting evidence-based prescribing. More work is needed to educate and convince pharmacists and general practice prescribers that patient outcomes can be improved by applying the most effective, evidence-based techniques.

Funding acknowledgement

This research was funded by a University of Bath studentship

5E.1 Exploring the views of Point of Care Ultrasound practitioners for widespread implementation in community settings in the UK

Presenter: Joseph Akanuwe

Co-authors: Dr Joseph Akanuwe1, Prof A. Niroshan Siriwardena1, Prof Luc Bidaut2, Dr Pauline Mitchell1, Paul Bird4, Prof Dan Lasserson5, Prof Richard Lilford3

Institutions: 1. Community and Health Research Unit, School of Health and Social Care, University of Lincoln; 2. School of Computer Science, University of Lincoln; 3. Institute of Applied Health Research, University of Birmingham; 4. Institute for Translational Medicine Research & Development, University Hospitals Birmingham NHS Foundation Trust; 5.Warwick Medical School, University of Warwich

Abstract

Problem

Point of Care Ultrasound (PoCUS) is a currently available and rapidly developing technology but still not widely used in the UK. Community PoCUS in prehospital and primary care settings could help to prioritise initial treatment, procedures and appropriate patient referral or conveyance to an appropriate secondary care setting. Recent reviews suggest that image quality, portability and cost of ultrasound devices are improving, that PoCUS is increasingly being used by general practitioners and emergency practitioners across the world, and that generalists can safely use ultrasound in a range of clinical settings to aid diagnosis. As further evidence of community PoCUS use and impact is needed in the UK, we aimed to explore the views of practitioners who use ultrasound in practice on the role of PoCUS and perceived barriers and facilitators for implementation in UK community settings.

Approach

We conducted a qualitative interview study with practitioners who use point of care ultrasound in practice. Participants were from community and secondary care settings, and interviews were conducted online via Microsoft Teams. A purposive sampling approach was used to recruit eligible participants through an inclusion criterion. Following ethics approval, participants were recruited by using a flyer advertising the study on social media (Twitter) and websites of relevant research groups. This was enhanced by a snowballing technique, with participants already identified serving as key informants to

recruit further eligible and willing participants to the study. Data were collected using individual semi-structured interviews lasting 40 – 60 minutes. Interviews were recorded, transcribed verbatim and analysed using a Framework approach assisted by NVivo 12 software.

Findings

In total, 16 practitioners, aged between 40 and 62, with a range of professional backgrounds including paramedics, prehospital emergency physicians, general practitioners and allied health professionals (radiologist, sonographer, physiotherapist), participated in interviews. Participants identified structural factors as perceived barriers to the deployment of community PoCUS. These factors included resource requirements for purchase and deployment of actual devices, sufficient time for training and inclusion in the workflow, and a suitably skilled workforce; special attention to training, education and support needs; as well as ensuring proper governance, guidelines and quality assurance for the use of PoCUS in such settings. To enable implementation of PoCUS in community care settings, participants also identified process factors requiring consideration. These included more robust evidence to reinforce perceptions of improved patient outcomes and experience, enhanced ease of use in assisting decision making, and also consideration of potential unintended consequences or incidental findings. Workforce considerations included need for supportive staff, champions and leadership.

Consequences

PoCUS could be a useful tool for improving community assessment and health outcomes, but structural and process factors identified in this study need to be addressed for community PoCUS to become a reality.

Funding acknowledgement

NIHR ARC East Midlands

5E.2 The impact of practice research activity on patient and practice outcomes

Presenter: Jon Gibson

Co-authors: Matt Sutton, Evan Kontopantelis, Peter Bower

Institutions: University of Manchester

Abstract

Problem

Research is fundamental to improving quality of care. Although research traditionally has an impact through implementation into routine care, there is increasing interest in whether participation in research itself drives better performance. The bulk of patient contacts are through general practice. If research participation improves outcomes, achieving those benefits through general practice could improve population health. However, the evidence that research activity improves outcomes mostly comes from secondary care.

Approach

We utilise data from the NIHR Clinical Research Network that contains the number of patients recruited into research at each practice. We conduct a cross-sectional regression analysis to investigate the cumulative impact of research recruitment on outcomes of interest such as CQC rating, QOF score and Patient satisfaction, whilst controlling for important practice characteristics. We extend the analysis using panel data regression to investigate the impact of becoming research active on subsequent changes to the outcomes of interest. This design controls for unmeasured factors that are broadly stable over time, such as effective leadership and organisational

capability, which may be associated with both research participation and outcomes

Findings

Although the panel data analysis is ongoing, findings from the cross-sectional analysis show that patient satisfaction was not significantly related to research activity. Clinical quality measures were positively related to research activity. Practices with the highest research activity achieved 1% (CI 0.6,1.5) more quality indicator points compared to practices with no recruitment activity, and practices with the highest research activity had a 3.6% (CI 0.9, 6.4) higher probability of being rated ‘good’ or ‘outstanding’.

Consequences

We find that practices that participated in the highest levels of research activity achieved significantly higher levels of clinical quality measures, after controlling for a range of other practice characteristics. If these associations are replicated in the ongoing causal analysis, it would suggest that practice participation in research activity may be beneficial for clinical quality.

Funding acknowledgement

This is research from the NIHR funded (NIHR201428) project 'Associations between Research Activity and Patient Health Outcomes' (ARAPAHO)

5E.3 How do Community First Responders contribute to rapid emergency response and recovery?

Presenter: Viet-Hai Phung

Co-authors: Phung VH, Pattison J, Botan V, Smith M, Ørner R, Trueman I, Asghar Z, Ridyard C, Rowan E, Brewster A, Mountain P, Evans J, Spaight R, Siriwardena AN.

Institutions: Community and Health Research Unit - School of Health and Social Care - University of Lincoln, National Ambulance Commissioners Network, East Midlands Ambulance Service NHS Trust

Abstract

Problem

Community First Responder (CFR) schemes are a longstanding means of engaging communities in the NHS. CFRs are community members who volunteer to respond to people with life-threatening conditions on completion of essential training. Previous studies highlighted the motivations for becoming CFRs, their training, community (un)awareness and implications of their work on themselves and others. The role of CFRs in prehospital care remains relatively underexplored. We aimed to explore real-world practices of CFRs and their contribution to emergency care in the community.

Approach

In a qualitative study, we conducted interviews with patients and relatives, CFRs and CFR leads, ambulance clinicians, and commissioners in England. Thematic analysis, supported by NVivo and guided by Actor-Behavioural change-Causal pathway (ABC) theory, enabled the identification of themes and subthemes.

Findings

We interviewed 47 participants, including patients and relatives (5), CFRs (21), CFR leads

(15), ambulance staff (4), and commissioners (2) from six ambulance services and regions. The findings revealed that the CFRs' work consisted of a series of sequential and interconnected activities. These included: identifying patients' signs, symptoms and problems; information sharing with the control room and ambulance on the patient's condition; rapid emergency response including assessment and care; and engaging with ambulance clinicians on arrival. The patient care sequence began with understanding pre-existing medical conditions, signs and symptoms, followed by CFRs sharing information with control room, ambulance crew en-route, or both on the risks and challenges in the patient's condition. CFRs also supported the ambulance in navigating locations in rural regions to reduce ambulance response time. CFRs were primarily involved in stabilising patients' conditions and taking observations prior to assisting with handover to ambulance crew. These practices supported the ambulance service to reduce patient transfer times.

Consequences

CFRs individual actions interconnected with others to enhance rapid prehospital care for patients requiring emergency assistance. The availability of emergency health services in the community is influenced by the patient's living conditions, such as rurality, and by innovations in CFR practices. These behaviours, represented in several strata, help shape emergency patient care. The ambulance service received information about patients' conditions, which could help ambulance clinicians adjust their treatment approaches. We conceptualised the ways that CFRs operated and found that they provided a valuable resource to improve emergency care.

Funding acknowledgement

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5E.4 How does opioid deprescribing in primary care affect community pharmacists?

Presenter: Louise Wilson

Co-authors: F.A. Belbin, R.D. Knaggs, J. Moss, A.J. Avery, T. Thornley, M.J. Boyd

Institutions: University of Nottingham, Boots UK

Abstract

Problem

Increases in opioid prescribing in the UK have received significant attention from researchers and policy makers in recent years. Several studies and initiatives are in development, or already exist, which support opioid deprescribing in primary care. However, the impact of deprescribing on community pharmacists, who supply medicines to those patients involved, has not been considered in previous research.Community pharmacists are commonly the first healthcare professional a patient will see following a GP appointment, the last before a medicine is used, and the only one with regular contact between reviews. This research forms part of a larger study which aims to explore the current role of community pharmacists in relation to prescribed opioids, and how they could further support patients to reduce the risks of harm from these medicines.

Approach

Qualitative, semi-structured interviews with community pharmacists in a patient-facing role, recruited though professional networks. Interviews conducted via MS Teams, video-recorded and transcribed verbatim. Inductive, first-order coding followed by thematic analysis. To date, 9 interviews have been

completed between March and December 2021 with recruitment ongoing.

Findings

All pharmacists reported a lack of information associated with opioid prescriptions made it difficult to identify those who may require further support. A few pharmacists had been approached by patients and carers with questions or concerns relating to deprescribing, but others had not seen or heard any evidence that deprescribing was happening in their local area. Where attempts to reduce opioids had been seen, pharmacists generally described these as unsuccessful, associated with vague prescription directions to reduce the dose, and that patients were resistant to the changes made. Conversations with patients about reducing opioid use where there was limited pain relief had occurred as part of the MUR service, but these had reduced since it had been decommissioned. There were some examples from pharmacists who had proactively engaged with patients about their opioid use during prescription counselling, encouraging them to speak with their GP about reducing the dose where appropriate.Most of the pharmacists interviewed stated they would be happy to support patients as their opioids were reduced if the necessary systems were in place to facilitate this.

Consequences

Opioid deprescribing is a complex issue involving several stakeholders, including community pharmacists. Involvement in deprescribing varied between participants in this study, however all community pharmacists cited they currently had insufficient patient information to expand their clinical role in this area, and most were positive about additional opportunities to support patients. Recommendations and programmes for reducing opioid prescribing should consider the contribution of community pharmacists.

Funding acknowledgement

This research is part of a PhD studentship jointly funded by the University of Nottingham and Boots UK.

5E.5 GP Perspectives on Enhancing Integrated Care at the GP-Hospital Interface: A Pilot Delphi Consensus Study

Presenter: Geoff McCombe

Co-authors: Eoghan Carey, John Broughan, Ronan Fawsitt, Aine Carroll, Walter Cullen

Institutions: University College Dublin, Ireland East Hospital Group

Abstract

Problem

Providing a joined up person centred coordinated healthcare system is a constant challenge and integrated care is thought to be a potential solution. Ireland's healthcare system is currently focused on delivering an integrated care system where emphasis is placed on universal healthcare which is primary care focused and patient-centred. The GP-Hospital interface has been identified as a key problem area and a need to account for the various professional perspectives when guiding reform is required. The aim of this study was to identify structures, processes and outcomes from GPs which may be important to enhance integrated care at the GP-Hospital interface using a Delphi consensus method.

Approach

An e-Delphi consensus study was conducted over two rounds. In Round 1, 15 participants were asked to score 32 statements, by how much they agree with their importance in enhancing integrated care at the GP-Hospital interface on a 4-point Likert scale. Options included strongly agree, agree, disagree, and strongly disagree. The statements were

grouped under three headings, (Structures, Processes & Outcomes) using the Donabedian model to analyse the quality of care at the GP-Hospital interface. Participants were also allowed to suggest their own statements. In Round 2, the 13 participants who completed Round 1 were shown the distribution of scores from Round 1 and were asked to rescore if they wished. Eleven participants completed Round 2.

Findings

Based on the Round 1 ranking, 15 of the 32 statements met the 70% threshold for consensus. Five additional statements suggested by participants in Round 1 were added, and two of these statements reached the consensus threshold in round 2. The largest consensus was observed in areas such as rapid access diagnostics, direct access to specific hospital departments and improved communication between GPs and Hospitals.

Consequences

This study has identified the key structures, processes, and outcomes that GPs believe would be important for enhancing integrated care at the GP-Hospital interface. The 17 statements that met the ≥70% and <15% threshold criteria will help guide future research when identifying important enhancements in integrated care. The identified elements for enhancing integrated care are also essential for the creation, development, and improvement of integrated healthcare policy in Ireland and elsewhere.

Funding acknowledgement

The work was funded by a Health Research Board Summer Student Scholarship 2021

5E.6 Pharmacist-led medication reviews for older care home residents: Are we delivering person-centred care?

Presenter: Rachel Lewis

Co-authors: Professor Carolyn Tarrant, Professor Richard Holland, Professor Natalie Armstrong

Institutions: University of Leicester

Abstract

Problem

National policy and guidance in England has identified Pharmacists as having a pivotal role in medications optimisation for care home residents with complex polypharmacy. National guidance advocates a person-centred approach to the review and optimisation of patient's medications. Despite this, studies looking at reviewing and stopping medication rarely include patient orientated outcomes such as patients' goals and preferences regarding medication. There is no consensus regarding a definition for person-centred care, and research suggests that healthcare professionals may wrongly perceive that they are delivering it. The complexities of person-centred medicines optimisation arise at the boundaries between multiple influential factors: the pharmacist; local context and resources supporting the review process, and the patient and their family. By exploring all three factors, this research study aims to develop a deeper understanding of what person-centred care means in the context of medication reviews in the care home environment, and the barriers and enablers to achieving a person-centred approach in practice.

Approach

This qualitative based study uses individual semi-structured interviews across three phases. Phase one involves interviews with

pharmacists conducting care home medication reviews for older residents. Participant recruitment is via local and national care home pharmacist networks acting as gatekeepers and by snowball recruitment from identified participants. A total of 20-30 interviews will be conducted with pharmacists until it is established that no new data are emerging and saturation is reached. Interviews will be conducted virtually by Microsoft Teams or via telephone. Audio transcribed interviews will be coded and thematically analysed supported by NVivo software. Subsequent phases will include case studies with four care home sites, and interviews with care home residents and their family members to discuss their experiences, goals and preferences regarding medication use and review.

Findings

Early themes emerging from phase 1 explore what person-centred care means in the context of care home medication reviews and identify multiple internal and external factors relating to the pharmacist, local context and resources supporting the review process, and the resident or family, which are perceived as barriers and enablers to achieving a person-centred approach to medication reviews for older care home residents. A key finding is that communication is described as complex and an enabling and limiting factor in terms of medication reviews. These barriers and enablers will be described and discussed.

Consequences

Pharmacist-led mediation reviews in care homes is an expanding and developing role within primary care. Learning from the experiences of pharmacists and other stakeholders in the review process will enable the development of a better understanding regarding the barriers and enablers to achieving a person-centred approach. This will support the development of resources to facilitate the inclusion of resident's medication use goals and preferences in the review process and ultimately improve their care.

Funding acknowledgement

The PhD is funded by an NIHR award

5E.7 What Human Factors issues are contributing to unsafe primary care in England and Wales? A national analysis of 64,347 patient safety incident reports

Presenter: Thomas Purchase

Co-authors: Joy McFadzean, Stuart Hellard, Paul Bowie, Peter Hibbert, Adrian Edwards, Andrew Carson-Stevens

Institutions: Division of Population Medicine (Cardiff University), NHS Education for Scotland, Australian Institute of Health Innovation (Macquarie University)

Abstract

Problem

Patient safety incident reports offer an important lens to evaluate how and why patients experience healthcare-associated harm. Learning captured from incident reporting systems can help inform strategies to mitigate future risks and improve safety. However, the quality of incident report content is highly variable. In response to this, the World Health Organization has highlighted a priority for the next decade to provide healthcare professionals and staff with training and support to identify the 'human factors' issues contributing to incidents. We aimed to establish a baseline assessment of reported human factors issues contributing to unsafe primary care outcomes. Using a human factors framework, we sought to identify which system-wide performance-influencing factors are least and most frequently reported. We then established priorities and recommendations for the

international human factors research and training agendas.

Approach

We carried out a secondary analysis of coded data from the National Reporting and Learning System which receives incident reports from healthcare organisations in England and Wales. We included reports from the community that met the national definition of a 'patient safety incident' and have previously been coded using the 'contributory factors framework' in the Primary Care Patient Safety (PISA) Classification System. Two researchers independently mapped codes in the PISA contributory factors framework to a well-established human factors framework, the Systems Engineering Initiative for Patient Safety (SEIPS). SEIPS depicts a sociotechnical work system with six interacting components including person(s), tools and technology, tasks, physical environment, external and organisational factors. Exploratory descriptive statistical methods were used to summarise frequencies and cross-tabulate coded variables.

Findings

From 64,347 reports, less than one-third (31%, n=20,208) included one or more contributing factor. About half of these reports (54%, n=10,896) related to General Practice/Primary care; these were analysed, yielding 15,372 contributing factors. There was good inter-relater reliability between researchers mapping codes between the PISA and SEIPS frameworks (kappa coefficient of 0.82). Person-related factors are most frequently reported (n=11,398, 59.7%). These can relate to clinicians, patients or teams and explores their skills, communication or clinical condition, for example. The least mapped SEIPS components related to tools and technology (n=738, 3.9%, e.g. availability), physical environment (n=661, 3.5%, e.g. layout) and external influences (n=14, 0.1%, e.g. cultural or regulatory influences).

Consequences

Patient safety incidents occur for a complex range of interacting system-wide reasons. The over-emphasis on person-related factors in incident reports is concerning, indicating limited attention is being paid to the recommended 'systems-approach' to learning about safety occurrences and which potentially foments the blame culture in the NHS. Support is needed for reporters (clinicians and patients) to holistically consider the range of system-wide human factors issues likely contributing to patient safety incidents, including those relating to the usability of technology, and the influence of the physical, social-cultural and external environments.

Funding acknowledgement

PRIME Centre Wales

5E.8 Do group-delivered interventions improve control of high blood pressure in hypertension?

Presenter: Sinead TJ McDonagh

Co-authors: Natasha Makukha, Sinead TJ McDonagh, Charlotte Reburn, Jane R Smith, Christopher E Clark

Institutions: Primary Care Research Group, University of Exeter Medical School, College of Medicine & Health, Smeall Building, St Luke's Campus, Magdalen Rd, Exeter, Devon, England EX1 2LU

Abstract

Problem

High blood pressure (hypertension) is the leading global cause of cardiovascular disease. Effective interventions to improve control of high blood pressure (BP) and minimise subsequent cardiovascular risk are needed. Individual patient interventions are effective but resource intensive. Primary Care

Networks present opportunities to share resources and deliver care to groups of patients. This may be more efficient, and more cost-effective, than individual interventions. However, current evidence for effectiveness of group-based interventions is equivocal. Therefore, we sought to summarise the current literature to inform design of a future group-based hypertension intervention.AimTo determine whether group-based interventions for hypertension achieve improved BP outcomes in comparison to usual care.

Approach

We undertook a systematic review and meta-analysis. We searched MEDLINE, Embase, CENTRAL and CINAHL from inception to 30th August 2019, for randomised controlled trials comparing group-based interventions for hypertensive adults (>18 years) with usual care, delivered in primary care, outpatient or community settings. Primary outcome measures were change in BP and attainment of BP targets. Secondary outcomes were costs and cost-effectiveness of interventions. Study level data were extracted by two reviewers, with disagreements adjudicated by a third. Pooled estimates of BP changes were compared between interventions and usual care in random effects meta-analyses. Statistical heterogeneity was quantified using I2 statistics. Study quality was assessed using the Cochrane Risk of Bias (RoB2) tool; publication bias was assessed using funnel plots and Egger's tests. Update searches were run on 5th January 2022; resulting data extractions will be completed before conference and final results presented. Study registered at PROSPERO: CRD42019145126.

Findings

After de-duplication, 5109 unique titles and abstracts were screened, 235 full texts assessed, and 57 cohorts included (n=4 qualitatively, n=53 in meta-analyses). Studies mainly took place in community (n=31) or primary care (n=14) settings. Interventions were predominately through education, exercise, or lifestyle instruction. Educational interventions reduced systolic blood pressure by 5.4 (95%CI 2.1 to 8.6) mmHg, exercise by 6.7 (4.1 to 9.3) mmHg and lifestyle interventions by 4.7 (2.3 to 7.1) mmHg more compared to usual care (p=0.002 for differences between intervention groups). Heterogeneity was substantial (I2>75% for each intervention group); for exercise interventions heterogeneity was largely explained by variation in intensity of interventions. Only 9 studies reported BP control rates, without evidence of improvement from interventions compared to usual care (risk difference 0.026, 95%CI -0.004 to 0.056; I2 = 7.4%). Secondary outcomes were poorly reported. Only 8 (15%) studies were judged to be at low risk of bias, limiting sensitivity analysis by study quality. There was no evidence of small study or publication bias.

Consequences

Moderate strength evidence suggests that greater BP lowering is achieved, compared to usual care, with group-based exercise, educational, and lifestyle interventions. Further high quality studies are required.

5E.9 Guidance for primary care practitioners on the safe detection and management of milk allergy in children.

Presenter: Hilary Allen

Co-authors: U. Pendower, M. Santer, M. Groetch, M. Cohen, S. Murch, H. Williams, D. Munblit, Y. Katz, N. Gupta, S. Adil, J. Baines, E. GPM de Bont, M. Ridd, V. Sibson, A. McFadden, J. Koplin, J. Munene, M. Perkin, S. Sicherer, R. Boyle.

Institutions: Imperial College London, Univ. of Nottingham, Univ. of Southampton, Jaffe Food Allergy Institute, Univ. of Alabama, Univ. of Warwick, Sechenov Univ. Moscow, Tel Aviv

Univ., Sir Ganga Ram Hospital New Delhi, ILCA, Manchester Children's Community Centre, Maastricht Univ., Univ. of Bristol, First Steps Nutrition, Univ. of Dundee, Murdoch Children's Research Instit., La Leche League, Univ. of London

Abstract

Problem

Milk allergy affects 1% of children under 2 years old. Community prescriptions for specialised formula used to manage milk allergy have increased almost 3-fold in England between 2007 and 2018 costing the NHS approximately £60 million annually since 2016. Concerns have been raised that industry-influenced milk allergy guidelines promote over-diagnosis of milk allergy and medicalisation of normal infant behaviour. Most milk allergy guidelines are written by specialists with conflicts of interest in relation to the formula milk industry. Primary care often lacks access to specialist allergy services. This Delphi consensus study aimed to develop guidance for primary care practitioners for the safe detection and management of milk allergy in children by a wide range of healthcare professionals without conflicts of interest related to formula industry.

Approach

This Delphi study involved 2 rounds of anonymised consensus building with an open consensus meeting. Seventeen of 28 international invited experts participated with expertise in general practice, dietetics, midwifery, health visiting, lactation support, general paediatrics, paediatric dermatology and paediatric allergy. External consultation was undertaken with a non-voting panel of current guideline authors (5) and mothers (7) of children with milk allergy diagnosis or mis-labelling. Flowcharts were developed producing a practical tool for primary care practitioners to diagnose and manage milk allergy.

Findings

Thirty-eight initial statements produced 72 statements in round 2 and 38 final recommendations by consensus. Recommendations included clinical scenarios when milk allergy diagnosis was not likely and distinguished between exclusively breastfed children and those children directly consuming cow's milk protein. Key recommendations included that maternal dietary restriction was not usually necessary to manage milk allergy and promotion of breastfeeding, with greater emphasis on supporting mothers physical and psychological health when undertaking elimination diets. Consideration of milk allergy diagnosis in exclusively breastfed infants with chronic symptoms was only recommended in specific rare circumstances. Consideration of milk allergy diagnosis was not recommended for children presenting with changes in stool colour or consistency, occasional spots of blood in the stool, aversive feeding or colic without a consistent history of symptom onset and reproducibility related to milk protein ingestion. Recommendations included specific criteria for the initiation or continuation of specialised formula to manage milk allergy and clinical scenarios when specialised formula was not necessary.The recommendations from this study provide clear guidance which will help primary care practitioners avoid overdiagnosis and over treatment of milk allergy. These recommendations are more supportive of breastfeeding and aim to reduce the burden of elimination diets on mothers.

Consequences

Guidance developed by a range of primary and secondary healthcare practitioners without conflicts of interest to formula industry, and including parent representatives, produces practical recommendations for use in daily clinical practice, which are more supportive of

breastfeeding and avoid unnecessary use of specialised formula.

Funding acknowledgement

This study was funded through an Irish College of General Practice Research Fellowship awarded to Dr Allen.

5F.1 Workshop

Humanising the virtual experience

Presenter: Louise Younie and Rofique Ali

Institutions: QMUL

Abstract

Workshop aim To explore a series of key ideas behind humanising the virtual space we have designed in response to the COVID-19 pandemic and the need for virtual clinical placements. These humanising elements are equally applicable in face-to-face education. Objectives By the end of the workshops participants will:

- Understand the importance of the human dimension for students
- Be equipped with a range of approaches to try out in their own context (in any learning context or meetings)

Format We will model face-to-face the approaches we use virtually as part of the CIRCA Med Ed cross medical school monthly meeting we run linked to Medical Schools Council. Our humanising approaches have emerged through iterative design-based innovation in the virtual space working together with students, tutors and faculty.

- Initial breakout into groups of 3, informal conversation
- Set the tone
  - psychological safety intervention
  - student voice (drawing on quotes from student lived experience of virtual learning)
  - the human dimension (explore through postcards)
- Use think-pair-share to explore learning online thoughts and experiences
- In large group discussion bring out ideas on interaction – learners talking 50% or more of the time, use of questions, use of breakouts, compassion for peer learners
- Summarise and evaluate through tools like menti, jamboard, padlet

The workshop will introduce participants to some key concepts such as psychological safety (1) and equal voice (2) from the field of leadership and organizational learning. We will also draw on the idea of creative enquiry (3) and other concepts relating to human-centred leadership in the Post-Covid-19 era such as meaningful work and facilitating collective reflective and emotional spaces (4). Content Themes we will address include:

- Starting and ending the meeting (crossing liminal spaces)
- Psychological Safety(1)
- Student Voice (5)
- Equal talk time and inclusivity (2)
- Flatten hierarchy – increase innovation (4)
- Meaningful work (4)
- Breakouts
- Reflective and emotional space
- Evaluation

Intended audience The workshop will be relevant to educators, clinicians, anyone who convenes a meeting.

1. Edmondson A, Higgins M, Singer S, Weiner J. Understanding Psychological Safety in Health Care and Education Organizations: A Comparative Perspective. Research in Human

Development [Internet]. 2016; 13(1):[65-83 pp.].

2. Duhigg C. What Google Learned From Its Quest to Build the Perfect Team. The New York Times Magazine. 2016.

3. Younie L, Swinglehurst D. Creative enquiry and reflective general practice. Br J Gen Pract. 2019;69(686):446-7.

4. Park B, Steckler N, Ey S, Wiser A, DeVoe J. Co-creating a thriving human-centered health system in the post-covid-19 era. NEJM Catalyst innovations in care delivery. 2020:2.

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P1.1A.1 Dying and death during COVID-19 in the community: General Practitioner Trainees perceptions and experiences

Presenter: Hugh Alberti

Co-authors: Rebecca Holdsworth, Professor Gill Vance, Dr Hugh Alberti, Dr Bryan Burford, Dr Emma Farrington

Institutions: Newcastle University, National Institute of Health Research

Abstract

Problem

General Practitioner Trainees in the community have had many dying and death experiences during the COVID-19 pandemic. The GP trainees have had many unique and challenging perceptions during this time including high volumes of patient deaths, overwhelming workload, depletion of personal protective equipment and widespread media coverage. New research is emerging constantly, however there has been little focus on primary care and GP trainees throughout the COVID-19 pandemic and understanding their experiences is valuable for many reasons. All of their new experiences reported need further research and deeper understanding to share insight with the medical community and wider population.

Approach

This study aims to explore General Practitioner trainees perceptions and experiences of death and dying in the community during COVID 19. An Interpretive phenomenological analysis (IPA) approach has been used to explore how the GP trainees made sense of major life experiences such as dying and death during COVID-19 pandemic. Dying and death perceptions and experiences are highly individual and can be of personal significance, therefore an IPA research approach was used for sampling, data collection and data analysis.

Findings

As dying and death is an inevitable reality with most of the worldwide population understanding its significance, it is important to recognise GP trainees role in supporting dying patients and their deaths in the community. The individual GP trainees' perceptions and experiences can offer very important insights helping to further understand individuals own reality and meaning, there may be some unique as well as shared experiences and perceptions of dying and death in the community. The preliminary results have found themes that are a directly and indirectly related to COVID-19 and the dying and death in the community. There were pressures which lead to uncertainty with decision making and the volume of dying and death resulted in GP trainees feeling guilty and frustrated. There were perceived differences between primary and secondary care and many benefits and risks to weigh up amongst other key elements.

Consequences

For most doctors the initial COVID-19 pandemic was very unique and extraordinary time that may never be experienced again. The GP trainees experiences of dying and death in the community during this time had lots of reassuring similarities to pre-COVID-19, however the challenges were unexpected and taxing, taking a physical and emotional toll on the participants.

P1.1A.2 Would GP trainees benefit from a specific GP return to training course in Wessex and Thames Valley?

Presenter: Stacey Ringham

Co-authors: Pippa Gardiner, Dagny Fowler, Emily Keaton

Institutions: SuppoRTT programme, Wessex, Higher Education England

Abstract

Problem

The Supported return to training (SuppoRTT) programme aims to help trainees, across all specialties to safely and confidently return to work after a period of absence from training for any reason. GP trainees are in a unique position compared to other trainees, returning to both GP surgeries as well as hospital posts, and can often find themselves isolated from peers. This has been exacerbated and highlighted during the pandemic. Through our own experiences and speaking with key educators in the deanery, we identified that a GP specific return to training course may be of benefit to those taking time out of training. We therefore used qualitative and quantitative research methods to gather opinions of current GP trainees, develop a specific interactive return to work course and evaluated this as a tool for improving confidence on return to work.

Approach

We surveyed all current trainees in Wessex about their experiences of time out of training and conducted two small focus groups virtually. Further ideas for the course were generated through focus groups with trainees to identify their ideas and needs for a specific GP training course. We piloted a course in December 2021 for trainees who returned to training between September 2021 and February 2022. We achieved feedback from all attendees of the course through a written feedback form following the course. A further course will be undertaken in March 2022 building on the feedback from the pilot course. For this course we will quantitatively and qualitatively evaluate the trainee's experience of the course, by providing pre and post course questionnaires to complete, focusing particularly on trainee's confidence and preparedness on return to work.

Findings

Following the survey of the pilot course, 100% of trainees felt more confident to return to work having attended the course and all said that they would recommend it to their peers. All trainees opted to join the WhatsApp group that was set up to promote peer support following the course. Further data to evaluate the March 2022 course will be available to present after this time.

Consequences

A course aimed specifically at those returning to GP training after a period of absence helps build confidence on return and provides ongoing opportunity to connect with peers following that, in the longer-term aiding retention within the GP training programme and beyond.

P1.1A.3 Development and preliminary evaluation of a frailty education resource for community pharmacists

Presenter: Heather Barry

Co-authors: Carmel M. Hughes, Heather E. Barry

Institutions: Primary Care Research Group, School of Pharmacy, Queen's University Belfast, UK

Abstract

Problem

Early identification and proactive management of frailty in primary care may improve patient outcomes (1). Whilst previous studies conducted by the research team have highlighted the key role that community pharmacists (CPs) consider they have in assisting frail older patients with their medicines, these studies identified CPs' lack of knowledge about frailty and its assessment (2,3). This study aimed to: (i) develop an educational resource to improve CPs' knowledge about frailty, its assessment and methods to support frail older patients; and (ii) obtain preliminary feedback from CPs about resource content and its relevance to clinical practice.

Approach

The educational resource was developed by the research team using a systematic approach, based upon an adult learner programme planning model (4), and was piloted with two academic pharmacists. Study participants were recruited through a local multidisciplinary project focusing on improving quality of life for older people, with recruitment facilitated by a project officer. Participants were provided with a copy of the educational resource to review and an evaluation form to complete. This form collected feedback on different aspects of the resource, such as its rationale, purpose, and content. Content analysis of evaluation form data was performed and individual topic guides were created for follow-up semi-structured interviews with participants. These interviews sought to elicit further clarity on participant feedback and a narrative description of the data was produced.

Findings

Two male CPs (registered for nine and 32 years respectively) participated in the study. Both pharmacists had undertaken previous training on frailty. Participants highlighted the need for frailty education for CPs, due to their frequent contact with this patient population, and perceived CPs as having a 'low' level of frailty knowledge: "I think if pharmacists were more skilled or were upskilled… even with dealing with it [frailty], we could definitely help." (CP2) CPs suggested the inclusion of more medication-specific information in the resource: "I just felt a bit more [information] on how to address the medication end of things, maybe a little bit more on the solution focus is always good." (CP1) Participants felt that the resource was an appropriate length and that information contained within it was of a suitable level for CPs and covered topics in sufficient detail. Positive feedback was obtained from participants regarding the resource's, aims, design and format.

Consequences

This educational resource is unique in its focus on frailty for CPs. Positive feedback was obtained from participants regarding the resource. Feedback provided by participants was particularly relevant due to the target population for the resource, their experience with frail older patients, and previous training in this area. This study has provided preliminary feedback, which may be used to further refine and develop the resource for more comprehensive evaluation in the future.

Funding acknowledgement

This study was carried out as part of a PhD studentship to LF funded by the Department for the Economy (DfE) in Northern Ireland. The funder had no role in the design or conduct of the study, in data analysis, or in the preparation or approval of the manu

P1.1B.1 Identifying the optimum strategy for identifying adults and children with coeliac disease: systematic review and economic modelling

Presenter: Martha Elwenspoek

Co-authors: Martha MC Elwenspoek, Howard Thom, Athena L Sheppard, Edna Keeney, Rachel O'Donnell, Joni Jackson, Cristina Roadevin, Sarah Dawson, Deborah Lane, Jo Stubbs, Hazel Everitt, Jessica C Watson, Alastair D Hay, Peter Gillett, Gerry Robins, Hayley E Jones, Sue

Institutions: University of Bristol, NIHR ARC West, University of Leicester, Royal Hospital for Sick Children Edinburgh, University of Southampton, York Teaching Hospital NHS Foundation Trust, University College London

Abstract

Problem

Coeliac disease (CD) is an autoimmune disorder that affects approximately 1% of the UK population and is triggered by ingesting dietary gluten. Only 1 in 3 are thought to have a diagnosis, meaning that the majority of cases are not aware they have the disease. Untreated CD damages the lining of the gut, which may lead to malnutrition, anaemia, and osteoporosis. Our main objective was to define at risk groups and determine the cost-effectiveness of active case finding in primary care.

Approach

We performed systematic reviews and meta-analyses on the accuracy of risk factors for CD, such as chronic conditions and symptoms, and on the accuracy of diagnostic tests for CD, including serological and genetic tests. We used the identified risk factors to develop prediction models for identification of people who may benefit from testing for CD in routine primary care data. We also conducted an online survey to identify how certain people want to be about their diagnosis before starting a gluten free diet. All this information was used to inform the development of economic models to identify the cost-effectiveness of different active case finding strategies.

Findings

People with dermatitis herpetiformis, family history of CD, migraine, anaemia, type 1 diabetes, osteoporosis, or chronic liver disease are 1.5 to 2 times more likely to have CD. The prediction models showed good discrimination between patients with and without CD but performed less well when externally validated. For children, the strongest predictors for having CD were type 1 diabetes, Turner syndrome, IgA deficiency, or a first-degree relative with CD; for adults these were a first-degree relative with CD or anaemia. Serological tests have good diagnostic accuracy for CD. IgA tTG had the highest sensitivity and EMA had highest specificity. Genetic tests (HLA DQ2/8) had a very high sensitivity but low specificity, suggesting they would be useful tests to rule out CD. Survey respondents wished to be 66% certain of the diagnosis from a blood test before starting a gluten-free diet if symptomatic, and 90% certain if asymptomatic. Cost-effectiveness analyses found that, in adults, IgA tTG at a 1% pre-test probability (equivalent to population screening) was most cost-effective. For strategies that do not involve population screening, IgA EMA plus HLA was most cost

effective at pre-test probabilities of 1.5% in adults and 5% in children. There was substantial uncertainty in economic model results and high value in conducting further research.

Consequences

The most cost-effective strategy in adults appears to be population based screening with IgA tTG. However, decisions to implement this cannot be made based on our economic analysis alone. Future work should consider whether population based screening for CD could meet the UK National Screening Committee criteria and requires a long-term RCT of screening strategies.

Funding acknowledgement

Funding for this study was provided by the Health Technology Assessment programme of the National Institute for Health Research (NIHR129020).

P1.1B.2 Multi-professional Care Home Education on Nutrition and Hydration

Presenter: Carmel Wills

Co-authors: Clare Padfield, Rachael Warren, Susan Clarke

Institutions: Primary Care School, Health Education England South East working across Wessex. Medicines Optimisation in Care Homes Team, Bath and North East Somerset, Swindon and Wiltshire Clinical Commissioning Group.

Abstract

Problem

With the aging population in the UK, locally a rising number of our patients now live in care homes. A significant proportion of our care home residents have issues achieving adequate nutrition and hydration. This is reflected in rising costs of oral nutritional supplements (ONS) and request for dietician referrals. Education to band 1-4 care home staff on this area has been inconsistent to date and they have reported feeling unsupported through the pandemic. Our aims were two-fold. Firstly to empower the band 1-4 care home staff to confidently identify and manage residents with issues around poor nutrition and hydration to improve the appropriateness of prescriptions of ONS and reduce costs to Primary Care. Secondly, we sought to nurture multi-professional relationships in Primary Care through having multi-professional facilitators.

Approach

We created a learning event across two pilot care homes in Salisbury facilitated jointly by two prescribing support dieticians from the CCG and a local GP. This was an interactive session with the following objectives: • how to recognise malnutrition and dehydration • how to calculate a MUST (Malnutrition Universal Screening Tool) score, including estimating weight and height in bedbound residents • how to treat malnutrition with a “Food-first” programme and fortifying a diet and improve hydration in a diet • sharing a recipe for a high calorie milkshake and taste testing this against prescribed ONS • understanding which are the local formulary-approved lower cost ONS alternatives to traditionally prescribed high-cost brands • when to involve specialist dietician services We undertook pre and post session evaluations of the carers including confidence intervals and space for qualitative feeding and a pre and post session audit of the local formulary-approved lower cost ONS in the GP practice attached to the care homes.

Findings

Qualitative and quantitative feedback shows how the carers found the session both informative and enjoyable and increased their confidence managing residents with issues around poor nutrition and hydration and how this will change their practice. (Data demonstrating this will be included in the final

presentation). An audit of the ONS prescriptions at the local GP practice prior to the educational sessions showed no requests for the local formulary-approved lower cost ONS. After the sessions, there were 11 new residents commenced on the local formulary-approved lower cost ONS.

Consequences

This demonstrates that this session is pivotal in changing prescribing behaviour for ONS with a significant cost saving to the local Practice. Creating this session has now forged close working relationships with the pilot care homes, GP practice and the BSW Medicines optimisation in care homes team to review all prescriptions from the local care homes. This will improve appropriateness of prescriptions and reduce costs to General Practice.

Funding acknowledgement

Hampshire Care Association

P1.2A.1 What are the experiences of people living with multimorbidity in Malawi?

Presenter: Edith F. Chikumbu

Co-authors: Edith F. Chikumbu, Christopher Bunn, Stephen Kasenda, Albert Dube, Enita Phiri-Makwakwa, Bhautesh D. Jani, Modou Jobe, Sally Wyke, Janet Seeley, Amelia C. Crampin, Frances S. Mair.

Institutions: University of Glasgow, Malawi Epidemiology and Intervention Research Unit, London School of Hygiene and Tropical Medicine

Abstract

Problem

Multimorbidity, the presence of two or more chronic health conditions, is an increasing global challenge. In parallel there has been growing interest in the concept of treatment burden (the work of managing chronic illness), and factors that affect a person's capacity to manage any given level of treatment burden. Most of the conceptual work in this sphere has been undertaken in high income countries. The applicability of theories, such as Burden of Treatment Theory, to low or middle countries (LMICs) is unclear as we know very little about the experiences of people living with multimorbidity in LMICs. The aim of this study was to: a) explore experiences of people living with multimorbidity in Malawi including their experiences of burden of treatment and 2) examine the utility of Normalization Process Theory (NPT) and Burden of Treatment Theory (BOTT) for understanding these experiences.

Approach

Qualitative semi-structured interviews with 32 people in Malawi, located in urban and rural locations, who were living with multimorbidity; 16 males; 16 females. Data analysed thematically and then conceptualised through the lens of Normalisation Process Theory (NPT) which focuses on treatment burden concepts and Burden of Treatment Theory (BOTT) which addresses treatment burden and issues likely to affect capacity to self-manage effectively.

Findings

We discovered that identified burden of treatment and capacity factors mapped well to NPT and BOTT constructs. Issues highlighted included: sense-making work to gain an understanding of health conditions and living with multimorbidity; dealing with disruptions to family life and the work of engaging with family and community to gain support; navigating healthcare systems; coping with lack of continuity of care; operationalising self-management advice; negotiating medical advice; assessing treatments. However, we identified a key issue that is less evident in high income countries, that is the burden posed by lack of access to treatments and/or services. Poverty and inadequate healthcare provision also

limited capacity to deal with treatment burden although supportive social and community networks were important facilitating factors.

Consequences

Improved access to health information/education would lessen treatment burden as would better resourced healthcare systems and enhanced standards of living. NPT and BOTT were shown to be useful for aiding conceptualisation of treatment burden issues in LMICs but we have demonstrated that 'lack' of access to treatments or services is an important additional burden which must be included when considering treatment burden in LMICs.

Funding acknowledgement

This work was funded by the MRC Grant MR/T037849/1 and by the University of Glasgow's GCRF Small Grants Fund, an initiative supported by an allocation of Global Challenges Research Fund from the Scottish Funding Council under agreement SFC/AN/10/2018. The

P1.2A.2 A retrospective analysis of patient encounters during COVID-19 at an Irish general practice.

Presenter: John Broughan

Co-authors: J Broughan, D Molony, T Heffernan, A Naxakis, B Wilson, S Abdoulraman, P Donnellan, G McCombe, W Cullen

Institutions: 1. School of Medicine, University College Dublin., 2. Mallow Primary HealthCare Centre, Mallow, Co. Cork, Ireland., 3. School of Chemical and Bioprocess Engineering, University College Dublin.

Abstract

Problem

Electronic Medical Record systems (EMRs) have played an important role in monitoring the COVID-19 pandemic's impact. However, the findings of EMR studies illustrating COVID-19's impact on primary care / general practice are mixed. This study aimed to provide greater clarity on these matters, particularly with respect to the pandemic's impact on services in Ireland.

Approach

This study retrospectively examined 'Reasons for Encounters' (RFEs) at a general practice in Cork, Ireland, from March 2020 to March 2021. Secondary analyses involving comparisons between the 2020-21 data and 2010-14 data from the same facility were also conducted to further illustrate COVID-19's impact. Data was collected using the practice's EMR system which facilitated the recording of 'Visit date', 'Visit reason' (as defined by the ICPC-2 classification framework), and 'Patient age' details. Data was analysed using Microsoft Excel and SPSSv26.0.

Findings

4,523 patients attended the practice from March 2020-March 2021, and there were 45,028 RFEs in this period. The mean number of RFEs per patient was 9.95 and the mean number of RFEs per day was 142.95. Most patients were 26yrs-69yrs (n = 27,306, 60.6%). Patients ≥70yrs accounted for 20.7% of the sample (n = 9,296), children and young adolescents (0-14yrs) made up 9.7% (n = 4,348), and the proportion of older adolescents and young adults (15-25yrs) was 9.1% (n = 4,077). Most RFEs were ICPC-2 code 'A's ('General and Unspecified') (n = 31,451, 69.85%), with 'Medication renewal' (A50) (n = 8,442;18.7%), and 'Administrative procedure' (A62) (n = 8,409;18.7%) RFEs most common. RFEs were highly prevalent in the winter, particularly during November 2020-February 21 (n = 13,847; 30.7%). Secondary analyses comparing 2020-21 and 2010-14 data showed that patient and RFE numbers increased by 86.8% and 63.88% respectively; that patients' age profile remained similar; that the

prevalence of ICPC-2 ‘General and Unspecified’ codes increased by 38.29%; and that RFE monthly trends were notably different with a high concentration of RFEs during the winter period only being evident in the 2020-21 data.

Consequences

The findings indicate that the demand for primary care / general practice services in Ireland is high; that the COVID-19 pandemic coincided with a large increase in general presentations with non-ICPC-2 system-specific symptoms; that the ICPC-2 coding framework used during the study period could be better suited to capturing the nuances of these general presentations; and that the pandemic’s impact on primary care / general practice in Ireland was most felt during the winter. Clinicians, policymakers, and researchers should seek to improve EMR systems at the primary care / general practice level to better monitor and respond to pandemics and epidemics.

P1.2A.3 What are patients' perceptions of Pharmacist home visits for people with moderate/severe COPD and multimorbidity, and does socioeconomic status impact their perception?

Presenter: Georgia Smith

Co-authors: Karen Wood, Frances Mair, Richard Lowrie, Jennifer Anderson, Jane Moir,

Institutions: University of Glasgow, NHS GGC

Abstract

Problem

Chronic obstructive pulmonary disease (COPD) is a common chronic disease seen in primary care. A 29% increase in prevalence and hospitalisation is expected by 2034 which will have huge consequences on patient health, wellbeing, mortality and healthcare costs. A novel complex intervention has been developed to improve COPD management. It consists of repeated pharmacist home visits to patients with moderate-severe COPD with the aim of providing holistic care and medicines support in collaboration with the patients' consultant respiratory physician, GP and wider team. This intervention is being assessed by a pilot randomised controlled trial (RCT) in NHS GGC and NHS Lothian. This study aims: 1) to determine patient's perceptions of the intervention; 2) to explore if patient perception is influenced by their socioeconomic status. There is limited previous literature around this type of complex intervention and no studies have investigated patient perception or the role of socioeconomic status.

Approach

We undertook 8 semi structured interviews with a purposive sample of participants allocated to the intervention group in the pilot RCT described above; including 4 participants from areas of low deprivation and 4 participants from areas of high deprivation as determined by the Scottish Index of Multiple Deprivation (SIMD). The interview guide was informed by the concepts of Normalization Process Theory (NPT) to examine the acceptability and implementability of the pharmacist intervention. Interviews were conducted by phone, recorded and transcribed. Thematic analysis was used to qualitatively analyse and compare the interviews, the data is then being conceptualised through an NPT lens.

Findings

Participants were aged between 51 and 82; 4 were male and 4 were female; 4 lived within the most deprived SIMD quintile, one lived within the third and 3 lived in the least deprived. Preliminary analysis of the interviews suggests that the intervention has

been well received. Our analysis indicates that patients from more deprived areas may have found the intervention more useful. Most participants from areas of high deprivation were very appreciative of the intervention, with one stating the pharmacist visits "enhanced everything" and were "very, very useful". Participants from areas of low deprivation appeared to view the pharmacist as an addition to their usual care, with one describing the pharmacist as a "third eye on the condition".

Consequences

Our findings may be used to inform intervention refinement and to support the case for this novel intervention to be assessed by a full scale RCT. The findings also further our understanding of the role socioeconomic status plays in the acceptability and reach of this type of complex intervention and may have implications for future targeting of such interventions.

P1.2A.4 Title: Interpreting safety netting: does it translate? Healthcare interpreters' perspectives on safety netting strategies in GP Consultations

Presenter: Eleanor Southgate

Co-authors: Stephanie Taylor

Institutions: Queen Mary University of London

Abstract

Problem

With increasing use of remote consultation, it is crucial that GPs are able to effectively triage serious disease from non-serious disease. "Safety-netting" is a well-recognised consultation strategy in primary care. It is generally understood to describe the advice given to a patient in the context of clinical uncertainty, which specifies actions that a patient should take if symptoms persist or new symptoms arise that are suggestive of a worsening clinical course or a more serious diagnosis.Safety-netting may have an important role in achieving early diagnosis of serious disease (for example cancer) where patients present initially with symptoms that do not meet the threshold for immediate referral, but nonetheless need monitoring or investigation. Use of safety-netting is also well established in the context of childhood illness to help parents understand how and when they should seek medical care if their child's condition does not improve. Studies examining safety-netting from the patient's perspective describe how it is ineffectual when it is not recognised or understood. In Tower Hamlets, East London, around 35% of adults use a main language other than English and use of interpreters for medical consultation is common. Interpreters' perceptions of safety netting strategies are poorly understood, yet their role is instrumental to the success of safety netting advice in language discordant consultation. This qualitative study aims to explore the perspectives of professional interpreters on the use of safety netting in primary care consultations. What do interpreters understand by the concept of "safety netting" and how do they perceive their own contributions to safety strategies used by GPs?

Approach

Focus group discussions will be conducted with 8 to 12 purposively sampled healthcare interpreters who are currently working in primary care. Data from focus group discussions will be used to inform interview guides for subsequent semi-structured interviews Focus groups and interviews will be audio-recorded and transcribed verbatim for inductive thematic analysis. This phenomenological approach will explore the subjective experiences of healthcare interpreters and their perceived contribution to safety netting in primary care.

Findings

This work is currently in progress. By inviting interpreters to share their perspectives on safety netting I will explore how they relate to a communication strategy that is widely relied on in primary care for risk management and patient safety.

Consequences

Insights into interpreters' role in safety netting in cross cultural consultation may influence future work into promoting patient safety in language discordant consultation in primary care.

Funding acknowledgement

NIHR School for Primary Care Research

P1.2B.1 Survival of patients with HFpEF in primary care (SurviveHFpEF): cohort study

Presenter: Clare Taylor

Co-authors: Clare J Taylor, Jose Ordonez-Mena, Andrea K Roalfe, Nicholas R Jones, FD Richard Hobbs

Institutions: Nuffield Department of Primary Care Health Sciences, University of Oxford

Abstract

Problem

Heart failure (HF) affects around one million people in the United Kingdom. Classification by ejection fraction at the time of diagnosis - HF with reduced ejection fraction (HFrEF) vs HF with preserved ejection fraction (HFpEF) - is vital to determine treatment options. HFpEF accounts for 25- 50% of all HF but outcome in a community setting is poorly understood. We aimed to report short- and long-term survival in a cohort of patients with HFpEF in primary care.

Approach

SurviveHF is a large population-based cohort study using data from the Clinical Practice Research Datalink (CPRD) between 1st January 2000 and 31st December 2017. The cohort includes 55,959 patients with HF. Patients in SurviveHF with evidence of HFpEF in their GP record were included in the SurviveHFpEF sub-study. Survival rates at one, five and ten years after HFpEF diagnosis were calculated. Kaplan-Meier curves were used to compare survival in people with HFpEF and the HF group overall. Causes of death for the HFpEF cohort were also reported.

Findings

The type of HF was recorded in 3,242 (5.8%) patient records in the SurviveHF cohort overall; 2,032 (3.6%) patients had evidence of HFpEF. Overall, one-, five- and ten-year survival was 90.6% (95%CI 89.3 to 91.9), 60.8% (58.2 to 63.5) and 36.1% (32.6 to 40.0), respectively in the HFpEF group. This compares to 75.9% (75.5 to 76.3) at one year, 45.5% (45.1 to 46.0) at five years, and 24.5% (23.9 to 25.0) at ten years in the HF group overall. Median survival was 7.16 years for those with HFpEF compared to 4.23 years for the total HF group. There were 741 deaths in the HFpEF group across the study period with HF listed on the death certificate in 292 (39.4%) of these patients.

Consequences

A small proportion of patients with HF in primary care have a diagnosis of HFpEF evident in their GP record. Survival in the HFpEF subgroup was better than the HF group overall but remained poor. More accurate recording of HFpEF in primary care could help to identify patients more easily. Further research is needed on interventions which could improve the long-term outlook of all patients with HF, including those with HFpEF.

Funding acknowledgement

This research is funded by the National Institute for Health Research (NIHR), including NIHR Applied Research Collaboration, Oxford and NIHR Biomedical Research Centre, Oxford, and the Wellcome Trust.

P1.2B.2 IMPlementing IMProved Asthma self-management as RouTine (IMP2ART) in primary care: internal pilot for a cluster randomised controlled trial

Presenter: Steph Taylor

Co-authors: Kirstie McClatchey, Jessica Sheringham, Atena Barat, Brigitte Delaney, Barbara Searle, Viv Marsh, Vicky Hammersley, Liz Steed, Stephanie Taylor, Hilary Pinnock

Institutions: The University of Edinburgh, University College London, Queen Mary University of London, The University of Sheffield, Queen Mary University of London, The University of Edinburgh, The University of Edinburgh, Queen Mary University of London, Queen Mary University of London, The University of Edinburgh

Abstract

Problem

Asthma results in 6.3 million primary care consultations in the United Kingdom (UK) each year, and supported asthma self-management (including regular clinical review, patient education, and asthma action plan provision) can improve asthma control and quality of life. However, despite the evidence, supported self-management for asthma, in particular action plan provision, is poorly implemented in practice. The IMPlementing IMProved Asthma self-management as RouTine (IMP2ART) programme is a multidisciplinary and theoretically-informed strategy to improve the implementation of supported self-management in primary care. The strategy includes 1) patient resources to support self-management (asthma review invitation letters, patient website) 2) professional asthma self-management education for practice staff 3) organisational strategies (asthma review template, audit and feedback). This pilot, internal to a cluster randomised controlled trial (RCT), aimed to test trial processes and recruitment feasibility, and to understand practices' likely engagement with the IMP2ART strategy.

Approach

A mixed-method pilot was conducted in 12 general practices (May-September 2021). Practices were randomised to the IMP2ART implementation arm (n=6), or usual care control (n=6). Recruitment and set-up processes were monitored, with quantitative data analysed on key aspects of the IMP2ART delivery (IMP2ART asthma review template uploads, audit and feedback reports sent, IMP2ART workshops held) and practice response (website views, education module completion). 10 qualitative interviews were conducted with implementation arm staff (general practitioners; nurses; practice managers) and IMP2ART facilitators (who delivered the strategy). Interviews were audio-recorded and analysed using framework analysis.

Findings

We successfully recruited 12 practices to the study. One control practice withdrew (due to a change in practice approach to data governance). We delivered the IMP2ART strategy largely as planned; the IMP2ART asthma review template was successfully uploaded, the annual asthma audit report was sent, and practice workshops were held in all implementation practices (attendance ranged from 7-31 clinical and administrative staff). There were, however, minor delivery delays for some monthly audit and feedback reports. Practice response analysis indicated ≈450 unique page views on the patient resource website, and 100% of practices completed the

team education module. Interview data were largely positive, with examples of how practices were using IMP2ART.

Consequences

The IMP2ART trial processes were successful and required only minor changes. Practices engaged with the implementation strategy and its resources, suggesting the IMP2ART strategy is acceptable and feasible. IMP2ART is now being tested in a UK-wide cluster-RCT.

Funding acknowledgement

Funding: NIHR PGfAR (RP-PG-1016-20008).The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

P1.2B.3 Postnatal primary care: Identifying opportunities for improving cardiovascular risk using the eLIXIR data linkage

Presenter: Liza Bowen

Co-authors: Mark Ashworth, Lucy Chappell

Institutions: Department of Population Health Sciences (King's College London), Department of Women and Children's Health (King's College London)

Abstract

Problem

There is a growing prevalence of cardiovascular disease, hypertension and diabetes in the UK and worldwide, and an increasing drive to prevent these individual conditions and associated multimorbidity. Pregnancy provides a ‘window into the future’, identifying women who are at particularly high risk. Following a hypertensive disorder of pregnancy (HDP) women are 4 times more likely to develop hypertension and twice as likely to die from cardiovascular disease in the following 20 years. Similarly, following gestational diabetes mellitus (GDM) women are 7 times more likely to develop type 2 diabetes than women who have not had gestational diabetes. While HDP and GDM are mainly managed antenatally by obstetrics and midwifery teams, postnatal follow up and long-term consequences are the remit of primary care. The long term sequalae of HDP and GDM are recognised in NICE guidelines for postnatal follow up of these conditions, but there is an absence of data on how often this follow up is missed, and whether this is patterned by socio-demographic factors.

Approach

This project aims to explore primary care follow up and physical and mental health outcomes in the first year postpartum, using routine data from the eLIXIR study. eLIXIR is a data linkage project combining maternity records from South London hospitals, general practice records, and mental health records collected on women attending maternity services in South London since October 2018.

Findings

Data linkage is currently in process. When data are available the following objectives will be assessed:

- Are women being monitored in primary care (Attendance at 6 week check, monitoring of blood pressure and HbA1c) following hypertensive and diabetic pregnancies?
- Does monitoring following hypertensive and diabetic pregnancies vary by socio-economic status (Index of Multiple Deprivation) and ethnicity?
- Are postnatal physical (Blood pressure, HbA1c, medication use) and mental health (depression, anxiety, psychosis) outcomes different in women who have had hypertensive and/or diabetic disorders of pregnancy?

Consequences

An understanding of the care currently received and the early physical and mental

health outcomes in women who have had HDP or GDM can be used to inform development of interventions to support this population to improve health for both future pregnancies and across the life course.

Funding acknowledgement

Liza Bowen is funded by an NIHR Academic Clinical Fellowship

P1.2B.4 What are the changes in HbA1c, and renal function associated with SGLT2 inhibitors among patients with varying stages (3-5) of CKD and Type 2 Diabetes?

Presenter: Mariam Sewaha

Co-authors: Mariam Sewaha*, Michael Naughton, Mariam Molokhia,

Institutions: King's College London

Abstract

Problem

Sodium Glucose Cotransporter 2 inhibitors (SGLT2is) lower blood sugar and reduce the risk of renal failure and cardiac failure in patients with diabetes and chronic kidney disease (CKD). The NICE guidelines currently recommend the use of SGLT2i to accompany other treatment options, such as Angiotensin Converting Enzyme inhibitors (ACEis) or Angiotensin receptor blockers (ARBs), after maximum dosage has been reached. However, the NICE guidelines do not discuss whether the use of SGLT2is by CKD stage affects outcome. We aimed to assess how SLGT2i use by differing CKD stage affects renal and glycaemic control outcomes.

ApproachA systematic review +/- random effects meta-analysis of renal and glycaemic RCT outcomes in adult diabetic patients ≥ 18 years by CKD 3-5 stage will be undertaken. PubMed, PRISMA, Medline, Google Scholar databases and Cochrane systematic reviews will be searched from 2010-2022. Risk of bias and finding certainty will be assessed with Risk of Bias 2 (RoB 2) and GRADEpro tools. Population: Adult patients ≥18 years who have both Type 2 Diabetes and CKD stage 3-5 (eGFR<60mL/min/1.73m2 or UACR >300 mg/g). Intervention: All types of SGLT2i will be included in this study.Comparators: SGLT2i vs. non SGLT2i useOutcomes: Renal function-eGFR, albumin: creatinine ratio (ACR) and glycaemic control (HbA1c). Where data is available, outcomes will be compared across individual CKD stages 3, 4 and 5.

Findings

Relevant extracted adjusted data will be summarised and displayed in tables or charts, with narrative synthesis undertaken. Provided there are sufficient data for meta- analysis, this data will be presented on a forest plot. Statistical heterogeneity will be measured using the I2 statistic and the Tau2 will be reported as a measure of between study variance.

Consequences

The results of this study can help assess SGLT2i effects on glycaemic control and renal function by CKD stage, adding to the evidence base. Our findings may help further inform prescribing evidence for patients with CKD and diabetes to prevent avoidable morbidity and health costs.

Funding acknowledgement

KCL MPH programme

P1.2C.1 Is it possible to raise a patient's 'activation level' through an intervention targeted specifically at that outcome?

Presenter: Kate Henry

Co-authors: Kay Leedham-Green

Institutions: Know Your Own Health, Imperial College London

Abstract

Problem

Patient activation measurements (such as Insignia's PAM) measure a person's level of knowledge, skills and confidence to self-manage effectively with one or more long term health conditions. Observational studies have shown that high patient activation scores are associated with better health outcomes along with reduced and more effective use of health services, resulting in cost-savings for the NHS. However, this gives rise to the question of whether it is possible to raise an individual's activation score through an intervention targeted specifically at that outcome and, if so, whether this change in activation level results in the anticipated improvements to health and service utilisation. An intervention that is successful in achieving the specific aim of increasing activation in patients with long term conditions will be a quicker, easier and more cost-effective intervention than one that aims to build a person's knowledge, skills and confidence to self-manage, with patient activation as a possible eventual outcome. Supported Self-Management ("SSM") interventions usually focus on the latter.

Approach

We report on a service evaluation of an established health coaching programme, the Structured Agenda-Free Coaching Conversation model. The programme was commissioned for patients who were struggling to manage with one or more long-term health conditions. The evaluation measured activation levels before and after the intervention using a validated measure, initially the "HeiQ" and later in the programme the "PAM". We then looked at studies that compared outcomes for people at low levels of activation with those of people at high levels of activation to see whether the quantitative and qualitative outcomes from the health coaching intervention matched the outcomes that would be expected if the intervention had been successful at moving people up the activation levels.

Findings

The results showed a significant rise in HeiQ and PAM levels following the Structured Agenda-Free Coaching Conversation intervention. Health service utilisation was looked at towards the end of the programme for all patients who had completed the Coaching intervention up until that point (n=186). It was found that the rise in activation scores for completers was accompanied by reductions in health service utilisation in line with observational studies, suggesting that patient activation is a legitimate interventional target. Patient-reported outcomes also reconfirmed that raised activation levels, as demonstrated by raised activation scores, were associated with a range of improved health outcomes, improved sense of wellbeing, more effective use of clinical services, and greater engagement with non-healthcare activities for health and wellbeing.

Consequences

There are significant implications both in terms of health and wellbeing outcomes for patients and for costs to the NHS. Currently it is of particular significance in terms of the new Health & Wellbeing Coach role and the coaching models they are using.

P1.2C.2 Is there a relationship between pain-related outcomes and satisfaction and autonomy support with the selfBACK app for people with low back pain?

Presenter: Karen Wood

Co-authors: Karen Wood(1), Tom I L Nilsen (2), Paul Jarle Mork (2), Jan Hartvigsen (3,4); Frances S Mair (1), Barbara I Nicholl (1)

Institutions: (1) Institute of Health and Wellbeing, University of Glasgow, Glasgow, United Kingdom, (2) Department of Public Health and Nursing, Norwegian University of Science and Technology, Trondheim, Norway, (3) Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark, (4) Nordic Institute of Chiropractic and Clinical Biomechanics, Odense, Denmark

Abstract

Problem

Low back pain (LBP) is the largest cause of disability worldwide. The use of digital health interventions (DHIs) for the self-management of LBP is growing; two factors that may influence their effectiveness are user satisfaction and autonomy. Although satisfaction with DHIs is often assessed, its relationship with study outcomes is rarely examined and there is little evidence on the impact of autonomy support on DHI outcomes. The selfBACK smartphone app is an evidence-based, decision support system designed to support the self-management of non-specific LBP, shown in a randomised controlled trial (RCT) to reduce pain-related disability compared to a usual care group. The aim of this study was to explore the relationship between satisfaction and autonomy support, with pain-related outcomes among participants in the selfBACK RCT.

Approach

An exploratory secondary analysis of data collected in the selfBACK RCT among 461 people with non-specific LBP in Denmark and Norway. Levels of satisfaction (satisfaction rating question) and autonomy support (Virtual Care Climate Questionnaire) were compared against the primary RCT outcome, pain−related disability (Roland Morris Disability Questionnaire [RMDQ]), and pain self-efficacy (Pain Self Efficacy Questionnaire [PSEQ]). A linear mixed model was used to 1) estimate within group changes in mean RMDQ and PSEQ from baseline to 3 and 9 months, and 2) compare the difference in mean change from baseline to three and nine months between those reporting high versus low satisfaction with the selfBACK app, as well as between those reporting low satisfaction and the control group. A similar analysis was used to estimate mean changes and between group differences for those reporting high versus low autonomy support, and low autonomy support versus controls.

Findings

No statistically significant differences were found in RMDQ or PSEQ between more and less satisfied, and more and less autonomy-supported app users. There was also no statistically significant difference in relation to either outcome measure between less satisfied app users and control group. However, while no statistically significant difference was found in mean RMDQ scores, less autonomy-supported app users achieved a greater improvement in mean PSEQ score over 9 months than the control group (difference in change between groups: 3.5, 95% CI 1.3 to 5.7, P=.002).

Consequences

This secondary analysis found no significant differences in outcomes between more and less satisfied, and more and less autonomy-supported, app users. The results show less satisfied and less autonomy-supported app users had similar changes in back-related disability and pain self-efficacy. This limited

evidence for no relationship between satisfaction and support and pain-related outcomes, suggests the selfBACK app is suitable for users regardless of these factors. However, being satisfied with and feeling support by an app, would be expected to encourage engagement and would be the preferred experience.

Funding acknowledgement

European Union Horizon 2020 research and innovation programme, grant agreement No. 689043

P1.3A.1 Lung cancer screening in diverse populations: a scoping review protocol

Presenter: Nicola Cooper-Moss

Co-authors: Runako Chadzimura, Umesh Chauhan

Institutions: University of Central Lancashire

Abstract

Problem

Lung cancer is the leading cause of cancer-related mortality worldwide with most cancers being detected at a late stage. Early detection through targeted screening is paramount for curative treatment and improving survival. Despite this, engagement with lung cancer screening is often poor (less than 50%), with the lowest participation observed among those patients who are most at risk. Existing studies have consistently highlighted the negative impact of current smoking and socio-economic deprivation on participation. However, there is still much to be learnt about factors influencing participation in diverse populations.

Approach

This review aims to map and identify gaps in the existing literature regarding lung cancer screening uptake in diverse populations. Keywords and medical subject headings for lung cancer screening and diverse patient characteristics will be searched in a minimum of four bibliographic databases. Populations of interest include but are not limited to different ethnic groups (including travelling and migrant communities), gender identities, cultures, religions, languages spoken, military background and disabilities. Outcomes of interest include lung cancer screening uptake rates, clinical outcomes and factors affecting engagement and implementation. Studies will be grouped and interpreted in the context of their geographical location and healthcare system in which they are situated.

Findings

Evidence on lung cancer screening is rapidly emerging. Existing studies have identified several practical and psychological factors which influence engagement with lung cancer screening internationally, however, preliminary scoping suggests that few studies focus specifically on diverse populations. Furthermore, there is a wide variation in the reporting of patient characteristics, such as ethnicity. Where reported, these characteristics are usually considered broadly rather than specifically. The confounding effect of intersectionality on lung cancer screening remains poorly understood.

Consequences

Further research is required to explore the diverse factors influencing lung cancer screening uptake. There is a need for reliable statistical information to quantify the disparity in lung cancer screening for specific diverse patient groups and the impact of intersectionality. Studies which explore motivators and demotivators in diverse groups will enable the development of evidence-based implementation strategies and culturally sensitive shared decision-making tools.

P1.3A.2 Significance of Faecal Immunochemical Testing (FIT) in early detection of adenomatous colorectal cancer (CRC) - Survival and Staging in Malta

Presenter: Leonard Callus

Co-authors: Dr. Philip Sciortino M.D.(Melit.),M.Sc.(Pub.Hlth.)(Melit.),M.R.C.G. P.,F.M.C.F.D, Dr. Adrian Callus M.D. MRCP(Acute) M.Sc

Institutions: Primary Healthcare Malta, Malta Primary Screening

Abstract

Problem

Adenomatous Colorectal cancer(CRC) patient data between 2008-2011 was compared with patients flagged with Faecal Immunochemical Testing (FIT) and eventually diagnosed with CRC in the Maltese Islands, specifically overall survival and staging. FIT staging was introduced in Malta in 2013 and this study focused on patients diagnosed till 2018.

Approach

Data of patients identified with CRC after positive FIT Testing was given by Malta National Screening, a department under the care of Primary Health Malta. The necessary histopathology reports were primarily obtained from the main hospital intranet through iSoft's iClinical Manager (iCM) and physical files. Microsoft Excel and IBM SPSS statistics were used to compile the data obtained from such reports, compare and test for statistical significance. Results were done compared to data collected in 2008 and 2012 of patients diagnosed prior to FIT testing.

Findings

From 81,019 tests analysed between 2013 and 2018, 4,066 positive tests were obtained which led to 3,701 patients undergoing colonoscopies. 144 cases of CRC were diagnosed and elected for this study. Results have shown that the majority of these patients were diagnosed early with better survival compared with patients diagnosed before 2012, prior to FIT testing. The study also showed that Right CRC might be missed due to reduced rates of right CRC across all years. Right CRC patients have also been diagnosed at later stages with worse survival rates compared to left CRC patients

Consequences

FIT testing leads to early diagnosis which in turn improves survival and prognosis. However, further analysis on efficacy compared with gold standard colonoscopy needs to be done due to suspected missed right CRC cases.

P1.3B.1 Roles and work-related factors associated with occupational burnout among general practitioners in Sheffield, UK: a cross-sectional study

Presenter: Finlay Anderson

Co-authors: Caroline Mitchell, Phillip Oliver

Institutions: Academic Unit of Primary Medical Care University of Sheffield

Abstract

Problem

General practice (GP) continues to experience a workforce crisis. Efforts to increase the overall number of GPs has largely failed and many current doctors plan to reduce their sessions or leave practice in the next few years. Personal well-being, work-load and occupational burnout are often given as the reasons for such decisions. Much of the focus within the NHS and research has been in individual factors with much less attention given to how roles and the work-environment influence symptoms of occupational burnout.

Approach

Study design: a cross sectional study design will be employed. Measures: occupational burnout will be measured using the Maslach Burnout Inventory. Perception of work-setting qualities will be assessed using the Areas of Work-life Survey and a range of role and work-place factors will be measured as derived from the literature and piloting with practitioners. Practice level data will be obtained from publicly available datasets. Data collection: a Qualtrics survey was developed using the measures of interest and distributed to all 74 Sheffield GP practices in February 2022. We plan to collect data at a practice and individual level. Participants: GPs working in a Sheffield GP practice as either a partner or salaried doctor. Statistical analysis: Factors associated with symptoms of burnout will be examined using multiple linear regression and structural equation modelling.

Findings

Results will be presented at the conference.

Consequences

This study addresses a necessary gap in our research and understanding of occupational burnout among GPs. It is hoped that the findings of this study will be used to develop strategies to help GPs continue in their roles whilst protecting their wellbeing and move towards a more holistic view than that provided by individual factors such as resilience training.

Funding acknowledgement

Dr Oliver's contribution was funded through a HEE NIHR Clinical Lectureship.

P1.3B.2 Burnout- an epidemic of broken spirits

Presenter: Orla Whitehead

Co-authors:

Institutions:

Abstract

To become more self-aware of our personal current risk of burnout, our spiritual health, and discuss ways to improve our spiritual health and decrease our risk of burnout
Objectives:

- Increase participant awareness of early signs of burnout
- Increase participant awareness of the link between burnout and spiritual health
- Consider personal and organisational interventions that could decrease the risk of personal and team burnout
- Contribute to research into the field of spiritual health and burnout, and contribute to the development of interventions to improve wellbeing

P1.4A.1 Current Transition Care for Late Adolescents (18-25years) with Food Allergies, in North West England

Presenter: Zainab Laheri

Co-authors: Dr. Jan Mei Soon, Dr. Tim Smith, Professor Mick McKeown

Institutions: University of Central Lancashire

Abstract

Problem

The incidence of food allergies is becoming extremely prevalent amongst late adolescents (18-25). This period of adolescence is characterised as a challenging developmental stage, whereby individuals will undergo a period of transition from parental supervision to self-management of their food allergy. During this time, individuals will also be dependent on health care systems to provide the necessary support and guidance. Currently two transition guidelines exist in the

UK (National Institute for Health and Care Excellence guideline (NICE) and the Children and Young's People Allergy Network Scotland (CYANS). Limited research is currently available investigating the current transition care for late adolescents with food allergies. Thus, the aim of this research is to explore the current health care access for late adolescents with food allergies.

Approach

A scoping review was conducted using keywords such as 'young adults', 'late adolescents', 'food allergy', 'health care access' and 'transition care', to determine the research objective.

Findings

Only one such study was identified. Khaleva et al. (2020), outline current transition care across Europe for young adults with food allergies and asthma. 86% of health care professionals reported a lack of transition guideline; 77% reported having no specific resources for adolescents; 76% had not received any training for this age group; only 4.2% reported using a readiness for transition questionnaire; most health care professionals never discussed self-harm, sexuality, depression and/or drug use.

Consequences

Adequate support is currently not available that targets the specific needs of late adolescents with food allergies, undergoing this critical period of transition. Little is known about the current transition care for UK health services for late adolescents with food allergies. Further research is therefore necessary to identify any existing gaps in knowledge and training of health care professionals. We will be using a mixed methods approach to explore the current health care access for late adolescents with food allergies in North West, England. Additionally, we will engage with health care professionals and late adolescents with food allergies for the development and implementation of interventions, to maximise quality of care distributed, allowing for successful self-management of food allergies.

Funding acknowledgement

This piece of research is funded by the National Institute of Health Research, Applied Research Collaboration, North West Coast (NIHR ARC NWC).

P1.4A.2 Di-Facto: Supporting access to online services in general practices – the patients' perspective

Presenter: Gary Abel

Co-authors: Gary Abel, John Campbell, Jeff Lambert, Christopher Clark, Mayam de Cano, Carol Bryce, Emma Cockcroft, Helen Atherton

Institutions: Univeristy of Exeter

Abstract

Problem

The rapid adoption of online services in general practice has accelerated during the COVID-19 pandemic. Use of e-consultations, ordering repeat prescriptions online and accessing medical records are widely available. While access to services online may be welcomed by some, there is concern that many may be unable to engage effectively. Little is known about the processes, procedures, and personnel employed in general practice to support NHS patients in their uptake and use of online services, (digital facilitation) and about patients' perceptions of these efforts.

Approach

As part of the Di-Facto study (Facilitating Access to Online NHS Primary Care Services) we are undertaking a survey of 12,000 patients (aged ≥ 16) from 60 practices. Between 150 and 285 patients from each participating GP practice are being sent a survey (depending on deprivation level). Most

participating practices have all previously responded to the practice survey. Questionnaire development started with input from the project's patient advisory group and drew on findings from a literature review and survey of practices which formed part of the wider project. Questions address patients' familiarity and confidence in computer and internet use, their awareness and uptake of online services and their experiences of practice support provided. Questionnaires are sent by post with one reminder questionnaire and a reminder postcard. Replies are requested by post or online.

Findings

The survey is ongoing, initial results being available for the conference. To date,168 practices have been invited, 62 expressing initial interest and over 6000 patients invited. In addition to descriptive findings, mixed effects logistic regression will be used to examine how perception of digital facilitation varies by patient factors e.g. age, gender, ethnicity, presence of long-term conditions and confidence in using computers and the internet. Patient responses will be linked to the responses of practices in the previous survey to examine whether patients are aware of digital facilitation efforts that practices report undertaking.

Consequences

Considering the fast and ongoing roll out of online services it is important to gain a fuller understanding of how best to support patients in their use of online services and examining the patient perspective is a key factor in doing so.

Funding acknowledgement

This study/project is funded by the National Institute for Health Research (NIHR) [Health Services and Delivery Research Programme 128268]. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and

P1.4B.1 Do General Practitioners' risk assessments and antibiotic prescribing decisions follow the STARWAVe clinical prediction rule?

Presenter: Martine Nurek

Co-authors: Alastair D Hay, Olga Kostopoulou

Institutions: Imperial College London, University of Bristol

Abstract

Problem

When children present with cough in primary care, prognostic uncertainty can lead to defensive antibiotic prescribing ("treat, just in case"). To combat this, a clinical prediction rule called "STARWAVe" was developed and validated. STARWAVe uses seven clinical factors (Short illness duration, Temperature, Age, Recession, Wheeze, Asthma, Vomiting) to differentiate children at "very low" (0.3%, ≤1 factor present), "normal" (1.5%, 2/3 factors present) and "high" (11.8%, ≥4 factors present) risk of deterioration. In so doing, it aims to reduce prognostic uncertainty and unnecessary prescribing in non-high-risk cases. Providing STARWAVe as a decision aid to General Practitioners (GPs) could improve risk assessment and prescribing decisions. However, risk scores are merely probabilities and could be ignored, especially if they contradict the decision-maker's intuitive assessment of risk. We aimed to compare GPs' intuitive risk assessments and prescribing decisions to those of STARWAVe. We also explored two different methods of eliciting risk estimates, and assessed the impact of parental worry.

Approach

188 UK GPs were randomly assigned to view 32 (of 64) vignettes depicting children with cough. Vignettes comprised the seven

STARWAVe factors, varied in a fractional factorial design. Per vignette, GPs estimated risk of deterioration in one of two ways (self-generated percentage vs. category selection; randomly assigned) and indicated how they would manage the patient ("prescribe antibiotics", "review within 24hrs" and/or "admit for paediatric assessment"; GPs could tick all that applied). GPs then saw an additional vignette, suggesting that "the parent is quite concerned". Using mixed-effects regression, we measured the influence of STARWAVe factors, risk elicitation method, and parental concern on risk estimates and prescribing decisions.

Findings

Relative to STARWAVe, GPs underestimated risk in 15% of cases (877/6016) and overestimated it in 30% (1776/6016). Consistent with STARWAVe, younger patient age increased GPs' risk estimates, as did fever, recession, wheeze, asthma, and vomiting (ORs>1.49, ps<0.001). Inconsistent with STARWAVe, shorter illness duration reduced them (OR=0.83, p=0.003).The prescribing rate was low (13%, 797/6016), with GPs preferring to admit high risk cases for paediatric assessment (70%, 2074/2972) and/or review within 24hrs (34%, 1014/2972), vs. prescribe (13%, 390/2972). Still, 51% of prescriptions were unnecessary relative to GPs' own risk estimates (407/797), and 69% relative to STARWAVe risk estimates (550/797). Factors increasing the odds of an unnecessary prescription were long illness duration, asthma, fever, and wheeze (ORs>1.54, ps<0.05).Risk estimates and prescribing odds were higher when GPs expressed risk as a percentage (vs. category selection; ORs>1.52, ps<0.042). Parental concern increased GPs' risk estimates (OR=2.42, p<.001) but not prescribing odds (OR=0.74, p=0.378).

Consequences

Relative to STARWAVe, GPs sometimes overestimated risk of deterioration and prescribed unnecessarily. Systematically, they misinterpreted illness duration, prescribing for longer rather than shorter illnesses. Providing STARWAVe as a decision aid necessitates that GPs are aware of and agree with its assessment of clinical factors.

Funding acknowledgement

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P1.4B.2 Coroners' perspective of medicines use in care homes: a five-year review of preventing future death letters in England and Wales

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Institutions: University of Central Lancashire,University of Sussex, University of Central Lancashire, University of Central Lancashire,

Abstract

Problem

Papers and regulators inspection reports have been published describing the rate and types of incidents involving medicines in care homes. Nevertheless, little information has been published on the impact or severity and causes of incidents involving medicines in these settings.

Approach

Coroners' preventing future death (PFD) letters and associated responses published between 2017 and 2021 on the judiciary.uk website classified as 'Care Home Health related deaths' were downloaded for review. These were classified by year of publication and publishing coroner. Inclusion criteria were medicines or medicines related processes in the PFD letter. In addition, the letters were

analysed and classified by location of residence, medicine, medicines process, the impact of the medicine or medicines process on the persons' death, other contributory factors (such as falls, care planning or escalation of care).

Findings

Hundred and fifty-six 'Care Home Health related deaths' were published. Thirty per cent (n=47) were published by three coroner areas Manchester South (n=30), Birmingham & Solihull (n=11), Derby & Derbyshire (n=6). PFD letters for 29 people described medicines or medicines processes, involving people living in care homes with or without nursing (n=24), five lived at other locations.Across the 29 PFD letters reviewed, 37 references to medicines (n=31) or medicines processes (n=6) were made. Escalation of care (n=10), care plans (n=7), communication (n=7) and falls, hoist or trauma (n=7) represented 84% of contributary concerns. Impact of medicine and medicines process on persons' death were quantified as no impact (n=6), contributory (n=9) and direct (n=22). The main three classes of medicines that either contributed or directly led to death were cardiovascular (n=8), central nervous system (n=7), endocrine (n=3). Among the deaths related to cardiovascular medicines, eight were associated with anti-coagulants, five with inadequate escalation following falls, two inappropriately administered, one was not administered in error. Central nervous system medicines were associated with toxicity or overdose (n=4), excess sedation (n=2) and sensitivity (n=1). Two deaths relating to endocrine medicines involved patients living with dementia, refusing insulin and staff not escalating the risk. The other involved the administration of insulin when the person was already hypoglycaemic.

Consequences

Coroners PFD letters concerning 'Care Home Health related deaths' have an uneven distribution across England and Wales. However, these letters provide insight into the potential association between medicines and the administration site. Emerging themes were the overuse of medicines leading to toxicity, overdose, excess sedation, and failure to obtain additional professional advice appropriately. The combination of the medicines and the event led to the persons' death. The findings suggest the need to conduct further research into this area to improve patients' safety and understand the rationale for the distribution of Coroners' PFD letters.

P1.5A.1 Enhancing GP care of Mental Health Disorders post COVID-19: A scoping review of interventions and outcomes

Presenter: Geoff McCombe

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Abstract

Problem

Considerable literature has examined the COVID-19 pandemic's negative mental health sequelae. It is recognised that most people experiencing mental health problems present to primary care at least in the first instance and the development of interventions to support GPs in the care of patients with mental health problems is a priority. This

review examined interventions to enhance GP care of mental health disorders, with a view to reviewing how mental health needs might be addressed in the post-COVID-19.

Approach

A scoping review was conducted using the six-stage framework described by Arksey and O'Malley to collate existing literature, identify key findings and outline current research gaps in relation to interventions which may improve the treatment of mental health disorders post-pandemic. Five electronic databases (PubMed, PsycINFO, Cochrane Library, Google Scholar and WHO "Global Research on COVID-19") were searched from May – June 2021.

Findings

The initial search identified 148 articles and a total of 29 were included in the review. These studies adopted a range of methodologies, most commonly randomised control trials, qualitative interviews and surveys. Results from included studies were divided into themes: Interventions to improve identification of mental health disorders, Interventions to support GPs, Therapeutic interventions, Telemedicine Interventions and Barriers and Facilitators to Intervention Implementation. Outcome measures reported included the Seven-item Generalised Anxiety Disorder Scale (GAD-7), the Nine-item Patient Health Questionnaire (PHQ-9) and the 'The Patient Global Impression of Change Scale'.

Consequences

Studies highlighted the feasibility and effectiveness of digital mental health interventions and suggested that their use is likely to persist after the current pandemic. However it is important that digital mental health interventions are supported by requisite standards of evidence, funding, and data protection legislation. With increasing recognition of the mental health sequelae of COVID-19, there is a lack of large scale trials researching the acceptability and effectiveness of general practice interventions, and a lack of research regarding possible biological interventions (psychiatric medications) for mental health problems arising from the pandemic.

P1.5A.2 Evaluation of the factors associated with inappropriate use of the emergency department at King Fahd Hospital, Jeddah City, and the role of primary care

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Co-authors: Aneez Esmail and Maria Panagioti

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Abstract

Problem

Citizens in Saudi Arabia are expected to enjoy free and unlimited health care but there are several accessibility challenges. One major challenge is that many patients visit directly the emergency departments (ED) of hospitals although their health issues could be treated at primary health care centres (PHCC). The over-presentation of Saudi patients in ED impacts on health care efficiency because available PHCC services are underused whereas expensive ED services are overused. This research aims to understand why patients who could be treated in PHCC inappropriately seek care at ED in Saudi Arabia.

Approach

A cross-sectional survey was undertaken in the King Fahd Hospital and three of its associated PHCCs in Jeddah city. The main inclusion criteria for this study is adult patients attending the PHCCs and adult patients presenting in ED with non-urgent health problems (which are treatable in PHCCs). All participants in PHCCs and ED were

interviewed using structured questionnaires specifically devised for the purposes of this study. Anonymised data was analysed using the SSPS software.

Findings

I recruited 410 adult patients, with males comprising 51.0% of the sample. A significantly high proportion of patients with non-urgent cases visited the ED in compare to PHCCs not married (64.9%), at younger age (62.5%), with lower education (56.4%), and lower income (72.2%). A significantly higher proportion of patients without emergencies did not suffer from any chronic diseases, and most of them lacked of health insurance while some of them worked for private sector. Most patients without emergencies thought the ED was the first place to consult when they felt symptoms as they lacked the knowledge of PHCCs clinics and services. A significantly higher percentage of ED attendees for non-urgent cases did not know the opening hours of PHCC in their neighbourhood. A significantly high percentage of ED attendees reported that their decision to visit ED without emergences was influenced by family or friends, and most of them were not registered with PHCC. A significantly higher proportion of ED attendees reported that they get better services at ED in compare to PHCCs services. These patients reported difficulties of getting appointments, communication with their PHCC physician, unavailability of investigation services, shortage of some medication, and visiting a different physician each time. Patients were more satisfied with PHCCs when their physician provided preventive counselling. The general satisfaction of PHCCs attendees were higher than ED attendees regarding PHCCs services.

Consequences

The planned study specifically examines whether there are differences in the characteristics, knowledge, attitudes and satisfaction of patients presenting in PHCC compared to patients who present in ED but could be treated in PHCC. The goal of this study is to identify factors that could be used by policy makers in Saudi Arabia to improve the usage of PHCC and the use of ED.

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