

Primary Care, Population Sciences & Medical Education: PhD Research Presentation Half Day

Online

Monday 24th January 2022, Microsoft Teams

9.05	Julie Parkes	Welcome and Introduction
9.15	Steph Hughes	Dyadic qualitative analysis of the experiences of men undergoing active surveillance for prostate cancer and their significant others
9.30	Sam Hornsey	Exploring the management of paediatric chronic insomnia in primary care: a mixed-methods PhD project
9.45	Ian Bennet-Britton	Developing a methodology of continuous, risk-based, consultation peer-review to identify and minimise unwarranted variation in clinician practice in in-hours general practice
10:00	Chloe Langford	An Interpretative Phenomenological Analysis of a Medical Student's experience of Impostor Syndrome
10.15	Liz Angier	Exploring the information needs of young people at risk of anaphylaxis and their carers to inform development of an intervention to support self-management
10:30	Amy Dobson	Support for unsettled infants: a digital intervention in partnership with families
10:45 – 11:05 Break		
11.05	Elizabeth Taylor	Preventing childhood obesity with combined hypothetical interventions on interpregnancy maternal smoking and weight: applying the parametric g-formula to a UK population-based cohort
11.20	Heather Mozley	Bursting Bubbles: how gateway programmes enhance undergraduate medical education
11.35	Marc Sanders	A mixed methods exploration of integrated chiropractic care models and the UK chiropractic profession's views on potential models of collaborative working with and employment within the NHS
11:50	Inna Walker	Adverse childhood experiences and improving health and life chances of young adults in the criminal justice system
12:05	Emilia Holland	Understanding the meaning of burden and complexity in the context of multimorbidity, and its assessment in primary care.
12:20	Samantha Belfrage	A systematic review of the effectiveness of community-based interventions aimed at improving health literacy of parents/carers of children
12:35	Julie Parkes	Close

Dyadic qualitative analysis of the experiences of men undergoing active surveillance for prostate cancer and their significant others

Stephanie Hughes

Supervisors: Prof Hazel Everitt, Dr Becky Band & Dr Beth Stuart

ABSTRACT

Background

Active surveillance (AS) for prostate cancer (PCa) is a monitoring programme designed to avoid or delay radical treatment (e.g. surgery), and the associated unwanted side effects. Previous research suggests partners/significant others of men on AS are important to PCa decisions both practically and emotionally, but research in this area is limited.

Research encompassing couples, families, or two or more people is becoming increasingly popular, however, until recently there has been a lack of clear, replicable, step-by-step methods for conducting dyadic qualitative analysis, particularly when dyads are interviewed separately. Much of the methodology literature in this area has focussed on data collection, leaving the analysis process open to interpretation. Collaco et al. (2021) recognised this issue and published a replicable method for dyadic qualitative analysis. This method is an adapted version of the Gale et al. (2013) Framework method and incorporates techniques from Eisikovits & Koren (2010) and Yosha et al. (2011).

Methods

This presentation provides a demonstration of this newly published method for dyadic analysis using interviews from 9 men on AS for PCa and their significant others. Dyads were interviewed separately using a semi-structured topic guide, transcribed verbatim and coded line by line in NVivo. Paired dyad interviews were analysed in tandem, charting codes into a table of themes. The themes were organised into a working analytical framework in excel. The final steps include the application of the analytic framework and interpretation.

Results

Preliminary results will be available at the conference.

Conclusions

This work highlights the practicalities of using the newly published Collaco et al. (2021) method for dyadic qualitative analysis. Further conclusions grounded in the data will be available at the conference.

Exploring the management of paediatric chronic insomnia in primary care: a mixed-methods PhD project

Sam Hornsey

Supervisors: Professor Hazel Everitt, Dr Cathy Hill, Dr Ingrid Muller, Dr Beth Stuart

ABSTRACT

Background

Childhood chronic insomnia (CI), specifically behavioural insomnia, is common and can impact the child and family. It can be managed effectively with behavioural interventions. Primary care may provide opportunity for early management/prevention.

Aims

This PhD project explored the management of paediatric CI in primary care.

Methods

A systematic review employing a narrative synthesis of 26 studies explored published evidence for primary care practitioners' (PCP) knowledge/views/practice for managing paediatric CI. Second, in a qualitative study of parents' posts in online discussion forums, 93 threads underwent reflexive thematic analysis to explore parents' sleep concerns, expectations, and views of resources online, in the community and in primary care. Finally, a mixed-methods study explored UK PCPs' views/knowledge/training/practice for managing CI in children ≤ 5 years old. 355 surveys were analysed with descriptive statistics and 21 interviews with reflexive thematic analysis.

Results

The systematic review suggested that PCPs believe various impacts of CI, would often recommend behavioural interventions, and perceive management as within their role, but have varied knowledge/confidence. Limited recent studies were specific to the UK. The online forum study suggested that parents have multiple different concerns about children's sleep problems, and that they infrequently discuss PCPs in online forums, but often use other informal resources. Nevertheless, they appeared to have had mixed experiences with health visitors and limited experiences with GPs. The mixed-methods study suggested that despite perceiving impacts of CI as impacting families, and that it should be managed/signposted in primary care, CI is rarely discussed in consultations and GPs have varied confidence for management. GPs have little training and knowledge of other resources but are interested in appropriate training.

Conclusions

It would be beneficial to increase discussions about CI in general practice and support this with increased GP training opportunities and awareness of existing evidence-based resources for signposting to parents.

Developing a methodology of continuous, risk-based, consultation peer-review to identify and minimise unwarranted variation in clinician practice in in-hours general practice

Dr Ian Bennett-Briton

Supervisors:

Professor Geraldine Leydon (*University of Southampton*)

Dr Leanne Morrison (*University of Southampton*)

Dr Andrew Carson-Stevens (*Cardiff University*)

Professor Chris Salisbury (*University of Bristol*)

ABSTRACT

Background:

Unwarranted variation in clinical practice is an area of increasing interest due to the costs and harms of too much or too little healthcare. Within primary care there is evidence of significant variation in clinician practice and a substantial burden of preventable harm.

Determining the extent to which observed variation is unwarranted requires detailed assessment of the clinician-patient interaction. Effective systems to detect and minimise unwarranted variation in clinician practice are crucial to ensure clinicians in an increasingly multidisciplinary general practice workforce can be deployed and supported to practice to their full potential. Such systems are limited in English general practice settings with implications for the efficiency and safety of care.

A potential solution is a risk-based, continuous, consultation peer-review system used by an out-of-hours general practice service provider over the last 10 years. This continuously samples a proportion of all clinicians' consultation records for peer-review, based their 'risk-status'. Sampled consultation records are screened by a professionalised peer-review team, and written electronic feedback is sent to clinicians to highlight areas of good practice or further learning. Continuous modification of clinicians' 'risk-status' based on their performance creates a feedback mechanism to focus the finite peer-review resource.

Aims

My PhD will adapt and refine this out-of-hours intervention for use in in-hours general practice settings using a "Person-Based Approach".

Methods:

Focused literature reviews and stakeholder interviews will be used to inform optimisation and adaption of the intervention to the in-hours setting. The intervention will be iteratively refined using feedback from focus groups with clinicians. The feasibility of using the intervention within in-hours general practice will then be explored through implementation over 6 months alongside a mixed-method process evaluation.

An Interpretative Phenomenological Analysis of a Medical Student's experience of Impostor Syndrome

Chloe Langford

Supervisors: Professor Sally Curtis, Dr Sarah Rule

ABSTRACT

Introduction

Impostor Syndrome is experienced by those unable to internalise their own success, leading to feelings of fraudulence¹. Research suggests that among medical students, Impostor Syndrome is a reliable indicator of psychological distress², which in turn correlates to a higher likelihood of making clinical errors³.

Methods

This qualitative study uses Interpretative Phenomenological Analysis (IPA) to investigate the lived experience of a medical student with Impostor Syndrome. IPA endeavours to understand a phenomenon as it is experienced by a small number of individuals; in this case, the participant's own definition of Impostor Syndrome is used as a base around which to frame her experiences and its impact on her life. A semi-structured online interview was conducted with a final year medical student which was then transcribed and analysed using IPA. Linguistic and descriptive analytical comments were made to ensure a multi-faceted interpretation could be achieved.

Results

This participant defines Impostor Syndrome as something experienced when one doesn't truly belong somewhere; this could be because their achievements and status are undeserved, or simply because they don't fit in. It is accompanied by a fear of being found out, and subsequently removed. The themes which emerged from the data were *Negativity*, *Application of External Forces*, *Confidence* and *Changing Attitudes*. A consistent thread throughout these was of feelings of isolation, both through a lack of practical support and an unwillingness to display vulnerability by seeking emotional support.

Discussion/Conclusion

The participant's negative experiences prior to Medical School have resulted in a detrimental lack of self-confidence, which have only been exacerbated by her subsequent Higher Education experiences. Her sharing of experiences provides valuable insight into her reality of living with Impostor Syndrome, allowing for pragmatic, constructive support mechanisms to be considered for future students and cohorts.

References

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Exploring the information needs of young people at risk of anaphylaxis and their carers to inform development of an intervention to support self-management

Dr Elizabeth Angier, Dr Ingrid Muller, Dr Leanne Morrison, Dr Paul Turner, Professor Miriam Santer.

ABSTRACT

Background

UK hospital admissions for anaphylaxis are increasing but anaphylaxis fatalities remain constant at around 20-30 per annum. For food allergy, young people are at greatest risk of severe anaphylaxis, although fatal reactions are fortunately rare. Information on self-management of anaphylaxis risk is available, but whether this actually improves self-management is unclear.

Aims

To develop a person-based behavioural intervention to support young people at risk of anaphylaxis.

Methods

We will engage with public contributors, health professionals and relevant charities to inform study design, conduct and dissemination.

1. Systematic review

A systematic review and thematic synthesis of qualitative studies exploring the views and experiences of young people at risk of anaphylaxis and views/experiences of their carers. Databases MEDLINE, Embase, CINAHL, PsycINFO.

2. Qualitative study

Qualitative interviews with young people aged 13 to 25 years at risk of anaphylaxis and their carers, recruited through a range of settings. Participants will be selected to ensure representation across a range of gender, ages, ethnicities and prior allergy reactions.

3. Theoretical intervention development

Likely intervention components will be aimed at: building skills and confidence in carrying and using adrenaline auto-injectors; building understanding, self-efficacy and planning skills around allergen avoidance; ensuring understanding and confidence in responding effectively if exposed to allergen. The intervention is likely to be online as a mobile app, website, or series of short videos. Intervention development will follow the person-based approach and a logic model will be developed to show proposed mechanisms of action.

4. Think aloud interviews

The intervention will be optimised iteratively through qualitative think-aloud interviews with target users. Interview feedback will ensure materials are acceptable, meaningful and engaging.

Potential impact

A self-management support intervention for young people at risk of anaphylaxis could help them self-manage their condition better, reducing risk and improving quality of life.

Support for unsettled infants: a digital intervention in partnership with families

Amy Dobson

Supervisors: Ingrid Muller, Miriam Santer, Susan Latter.

ABSTRACT

Background:

Infants commonly exhibit symptoms such as excessive crying, rashes, stool changes or vomiting^{1, 2}. These can cause significant distress and impact on the parent-infant relationship³. Many unsettled infants improve with health professional support and/or feeding advice³. Occasionally there are underlying causes, such as Cow's Milk Allergy (CMA) or Gastro-Oesophageal Reflux (GOR). Prescribing for both indications has risen dramatically in the past decade, arguably attributable to formula milk industry influence⁴. Overdiagnosis has potential for harm through medication side effects^{5,6,7}, impacts on breastfeeding⁸, family diet and mental health⁹. While there are interventions supporting the transition to parenting^{10,11}, few target parents/carers who suspect a medical diagnosis. There is a wealth of information on CMA and GOR online, however most is biased by formula industry involvement.

Aims:

To develop and test a digital behavioural intervention supporting parents/carers to manage unsettled infants.

Methods:

The Person Based Approach¹² will be used alongside PPI and other stakeholder involvement to develop an intervention that is embedded in the needs, experiences and contexts of families who suspect a medical diagnosis for their infant's symptoms.

Phase 1:

Systematic literature review and an SPCR-funded qualitative study interviewing parents/carers about their experiences. Behavioural issues, needs and challenges will be identified. Relevant theoretical paradigms including attachment theory, self-efficacy and a dyadic approach to parent and infant mental health will be applied.

Phase 2:

A prototype intervention will be developed using LifeGuide software. Qualitative think-aloud interviews will elicit user reactions to iteratively optimise the intervention acceptability and usability, ensuring it is optimally engaging and meaningful to target users.

Phase 3:

A feasibility study will be conducted to evaluate intervention uptake and usage. The perspectives of seldom heard groups will be included.

Output:

A digital intervention to support parents/carers of unsettled infants. This will be an accurate and trustworthy resource, free of industry influence.

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Preventing childhood obesity with combined hypothetical interventions on interpregnancy maternal smoking and weight: applying the parametric g-formula to a UK population-based cohort

Elizabeth Taylor

Supervisors: Nisreen Alwan, Keith Godfrey, Ann Berrington

ABSTRACT

Background

Maternal exposures before and during pregnancy have been linked to offspring adiposity and the interpregnancy period is an opportunity to intervene on modifiable risk factors. Combinations of hypothetical interventions between the first (P1) and second pregnancy (P2) were considered to calculate the effect on rates of childhood obesity (\geq 95th centile) in second children.

Methods

Records for 5612 women within the SLOPE (Studying Lifecourse Obesity PrEdictors) study were analysed. This is a population-based cohort of prospectively-collected anonymised antenatal and birth healthcare data (2003–2014), linked to measured child body-mass index (BMI) at age 4–5 years. The parametric g-formula was applied to estimate the effects of interventions between P1 and P2. Estimated second child obesity was calculated and compared with the estimated natural-course scenario (without intervention).

Results

If all mothers started P2 with BMI 18.5–24.9 kg/m², and all smokers stopped smoking by confirmation of P2, then, compared with a natural course estimate of 8.3% (95% CI 7.6–9.1), second child obesity prevalence would be 6.2% (5.5–7.0).

For mothers who started P1 with BMI 18.5–24.9 kg/m², if all smokers stopped smoking, then, compared with a natural course estimate of 5.9% (5.0–6.7), second child obesity prevalence would be 4.9% (4.1–5.7). If BMI was also maintained between 18.5 and 24.9 kg/m² the prevalence would be 4.6% (3.9–5.4).

For mothers who started P1 with BMI of 30 kg/m² or greater, if weight was reduced to being either 18.5–24.9 kg/m² or 25–29.9 kg/m² by the start of P2, then, compared with a natural course estimate of 17.7% (15.1–20.9), second child obesity prevalence would be 12.5% (8.3–17.4) and 14.6% (11.1–17.7), respectively.

Conclusions

Interventions between pregnancies could reduce obesity rates in the second child, with the most effective interventions varying by maternal BMI during the first pregnancy.

Bursting Bubbles: how gateway programmes enhance undergraduate medical education

Heather Mozley

Supervisors: Prof. Sally Curtis, University of Southampton; Dr. Kath Woods-Townsend, University of Southampton; Prof. Marcus Grace, University of Southampton

ABSTRACT

Gateway to medicine programmes widen participation by supporting students from underrepresented backgrounds to undertake medical degrees. Currently, most widening participation research focuses on challenges students experience accessing and navigating university^{1,2}. This study offers a diversity-positive discussion of widening participation by examining its impacts on undergraduate medical education in two UK universities, including how gateway students are perceived and how interactions between diverse students enhance their education.

This qualitative research employs a comparative case study design. Medical students and staff participated in focus groups, discussing their perceptions of widening participation and student diversity. Data were thematically analysed. Narrative interviews, where participants described interactions with students from different backgrounds, were conducted. These data are being narratively analysed.

43 students in Years 1-3 and 13 staff participated in 16 focus groups. At the University of Southampton, 'perceived differences' of students from underrepresented backgrounds were highly valued, but inhibited integration. Participants from the University of Aberdeen also championed the benefits of widening participation, and gateway students felt equal and integrated in the medical school. However, some questioned the 'unique' contributions made by gateway students, while others felt that professional assimilation mitigated the benefits of diversity.

The focus groups revealed *what* impact gateway programme students make on medical education, but not *how*. This was explored further in narrative interviews with 8 medical students in Years 3-5. Three types of experiences of interacting with students from different backgrounds have been identified in initial analysis as impacting education: Disorienting Dilemmas, Formative Friendships, and A Moment with An 'Other'.

This research illustrates the contributions widening participation students can make to medical education and how these are realised. All findings are considered in relation to their contexts, providing insights into factors which shape how these students are perceived, and conditions which enable enriched learning in a diverse student group.

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A mixed methods exploration of integrated chiropractic care models and the UK chiropractic profession's views on potential models of collaborative working with and employment within the NHS.

Marc Sanders

Supervisors: Prof Michael Moore, Prof Dave Newell, Dr Jane Vennik, Dr Jonathan Field, Dr Neil Osborne

ABSTRACT

Background

Musculoskeletal (MSK) conditions are the United Kingdom's (UK) leading cause of disability for years lived with disability (YLDs), and healthcare costs for MSK conditions are the third largest area of NHS programme spending. Chiropractors are well placed to manage MSK conditions and can potentially address this burden by being part of the NHS's MSK workforce. However, few studies have explored integration of this profession into healthcare systems or the reasons why integration is successful within different healthcare contexts, and no recent research has been published concerning the views of the UK chiropractic profession towards integration with or within the NHS.

Aims

- Realist review: To explore the contexts and mechanisms that influence the degree to which integrated chiropractic care service delivery is implemented to inform future integrated chiropractic care models.
- Qualitative interviews and cross-sectional survey: To explore the current attitudes, perceptions, and future intentions within the UK chiropractic profession concerning integration models with or within the NHS.

Methods

For the realist review, sources included bibliographic databases such as MEDLINE and CINAHL for empirical and theory searches and various sources for grey literature searches including TripPro using terms for 'integration', 'chiropractic', and 'healthcare setting'. First level selection criteria included papers that included chiropractic care in integrated healthcare settings, which were independently screened by two reviewers.

Findings

61 initial programme theories have been created to aid the realist synthesis. Database searches resulted in 18605 results, de-duplicated to approximately 11133. Titles and abstracts were initially screened for eligibility, of which 857 were eligible for second level screening.

Discussion

The studies within this PhD will highlight and address gaps in the current research literature with regards to successful integration of chiropractors into healthcare systems and the views of UK chiropractors towards integration with and within the NHS.

Adverse childhood experiences and improving health and life chances of young adults in the criminal justice system

Inna Walker

Doctorate of Medicine (DM) supervisors: Julie Parkes, Nisreen Alwan, Sara Morgan

ABSTRACT

Background

Adverse childhood experiences (ACEs), which include child maltreatment and household dysfunction, constitute a risk factor not only for offending, but also for poor mental and physical health. ACEs have been termed a 'chronic public health disaster'.

Aim

This DM is embedded in the Gateway Study, which aims to evaluate an out-of-court community-based, police-led Gateway intervention programme, aimed at improving health and well-being, and reducing recidivism in 18-24-year-olds who have committed low-level offences.

DM components

1. A systematic scoping review of the effectiveness of interventions to improve mental health outcomes in children and young adults with a history of ACEs

A total of 20,620 records were screened and 35 studies identified. Trauma-Focused Cognitive Behavioural Therapy was found to be consistently effective. Other types of interventions, of variable effectiveness, were stress reduction and resilience-building, mentoring, multidisciplinary support, play therapy, art and music therapy, sports therapy and group therapy.

2. Randomised controlled trial

More than half of the target sample size of 334 has been recruited. However, monthly rates of recruitment by Hampshire Constabulary have been insufficient, due to a combination of factors. In addition, the rates of data collection have also been suboptimal, mainly due to difficulties establishing contact with participants, and telephone appointments being missed. As a result, the trial component of the study is being closed down.

3. Process evaluation

Due to the above change, the main focus of this DM has now been redirected towards process evaluation, which includes thematic analysis of interviews with all stakeholders involved in the delivery and receipt of the intervention. The interviews are focused on the effects of Gateway and challenges encountered, the impact of ACEs on life trajectory of Gateway clients, and the effect of COVID on their lives and compliance with the intervention.

Understanding the meaning of burden and complexity in the context of multimorbidity, and its assessment in primary care.

Emilia Holland

Supervisors: Dr Simon Fraser, Professor Nick Francis, Dr David Culliford

Background

Prevalence of multimorbidity in the UK is rising, and early-onset multimorbidity is more common in areas of higher deprivation. Burden can be caused by the symptoms of long-term conditions themselves, or due to the associated demands of disease management, such as lifestyle changes and attending multiple appointments. This 'treatment burden' is often high in patients with multimorbidity and can be overwhelming. This project will explore the true experience of multimorbidity, beyond simply a count of the number of diseases, to include the impact on patients, incorporating such issues of complexity.

Aims

To develop and test an algorithm which identifies multimorbid patients with a high level of burden and complexity within primary care data.

Research Questions

- What features of living with multimorbidity do patients consider burdensome and make living with multimorbidity complex?
- How can features of burden/complexity be identified in primary care data?
- Can an algorithm be derived using primary care data which identifies key aspects of burden/complexity?
- What proportion of patients within a defined population have high burden/complexity by this algorithm?
- What are the characteristics and associations of patients with high burden/complexity?
- Can this algorithm be externally validated?

Methods

- Qualitative evidence synthesis to assimilate the evidence on the lived experience of multimorbidity with regard to burden/complexity
- Consensus study (Delphi) to agree characteristics of burden/complexity for use in routine primary care data
- Algorithm development based on themes identified in the qualitative evidence synthesis and consensus study
- Algorithm implementation within a large GP dataset such as CPRD/SAIL/RCGP RSC to identify patients with high burden/complexity
- External validation and piloting of the algorithm in the real world of GP practices/CCG to confirm reproducibility and generalisability
- Methods of algorithm performance may include ROC Curve analysis and calibration

Results and Conclusions

None to date

A systematic review of the effectiveness of community-based interventions aimed at improving health literacy of parents/carers of children

Samantha Belfrage

Supervisors: Professor James Faulkner – UoW; Dr. Margaret Husted – UoW

Advisors: Dr. Simon Fraser – UoS; Dr. Sanjay Patel – University Hospital Southampton

ABSTRACT

Aim

The aim of this systematic review was to examine the effectiveness of community-based health literacy interventions in improving the health literacy of parents.

Methods

A systematic review of six databases; MEDLINE, PsycINFO, CINAHL, Cochrane Library, Embase, and Education Source was conducted to identify relevant published articles. Risk of bias were assessed using version two of the Cochrane risk of bias tool for randomised controlled trials or the Cochrane Collaboration Risk of Bias in Non-Randomised Studies of Interventions. The study findings were grouped and synthesised following the Synthesis Without Meta-analysis framework.

Results

Eleven community-based health literacy interventions for parents were identified. Study design included randomised controlled trials (n=4), non-randomised studies with comparison group (n=4), and non-randomised studies without a comparison group (n=3). Interventions were delivered digitally, in person or a combination of the two. The main findings of the studies showed some potential for both in person and digital interventions to increase parental health literacy. The risk of bias was high in over half the studies (n=7) Studies were heterogeneous preventing a meta-analysis.

Conclusions

Community-based, health literacy interventions emerged as potential methods for enhancing parental health literacy. These findings need to be interpreted with caution due to the limited number of included studies and their risk of bias. This review highlights the need for more theory and evidence-based research which captures the long-term impact of community-based interventions.