CPC HSR seminar, Tues 25 April 1 to 2pm

Session title: Diabetes Prevention Programmes in UK and Ireland: uptake, engagement and cost-effectiveness

Presenter 1: Clair Haseldine

Title: Understanding participation in an online diabetes prevention programme. A mixed methods study

Abstract:

Background: Diabetes prevention programmes (DPPs) prevent diabetes in those at high risk. Yet, many people at high risk are not referred or do not participate in DPPs. Digital DPPs (e.g., online or mobile) provide new ways to reach participants, however there is limited research on factors that affect participation in such programmes.

Purpose: To gain an understanding of factors influencing participation in digital diabetes prevention programmes

Methods: This study uses an explanatory sequential mixed methods design. Quantitative administrative data (e.g. age, gender, and reasons for declining) were collected by educators on all those invited to a national online DPP in Ireland between June 2021 and September 2022. A bespoke questionnaire (adapted from the NHS-DPP evaluation) was administered to attenders to examine factors affecting participation. Data was analysed descriptively. Focus group discussions and interviews were conducted with programme attenders and educators and are being analysed using framework analysis with the Theoretical Domains Framework.

Preliminary Results: Of 158 people at risk invited to attend the online DPP, 73 accepted (46%). Of those, 39 (53%) were male and average age was 60 years. Overall, 85 (54%) declined with 26 (31%) decliners citing technology as the main barrier to participation. Remote interviews and focus groups were conducted with 13 attenders and 8 educators. Initial qualitative analysis suggests fear of developing diabetes motivated many to participate and having family members or knowing someone with diabetes positively influenced participation. Family and educator support helped facilitate online participation. Joining an online group was perceived as less daunting than joining an in person group, with some participants feeling they could be more open online which may have also positively influenced participation. Support of the group also facilitated retention to the programme.

Conclusion: While the online format was considered convenient by both educators and attenders, simultaneously, difficulty with technology was the most commonly cited reason not to participate. Study findings can be used to inform tailored implementation strategies for other digital DPPs internationally and may be useful for other health interventions that were forced to adapt to online delivery due to Covid 19.

Biography: Clair Haseldine

School of Public Health, University College Cork

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Clair is a HRB/SPHeRE PhD scholar working in chronic disease prevention. Her research is focused on diabetes prevention programme implementation.

Clair qualified as a Chartered Physiotherapist from Trinity College Dublin and has an MSc in Advanced Healthcare Practice from the University of Limerick. She spent time working in the USA as a physiotherapist and prior to commencing her PhD worked as a Senior Community Physiotherapist for the HSE with a special interest in diabetes prevention.

https://www.universityofgalway.ie/cdp-cdp/meetourphdtrainees/clair-haseldine.html

Presenter 2: Rhiannon Hawkes

Title: Engagement with the nationally implemented NHS Digital Diabetes Prevention Programme: Usage patterns over the 9-month programme duration

Abstract:

Background: Digital interventions may be a scalable way to achieve behaviour change. However, user engagement is necessary for such benefits to be achieved. There is a dearth of research assessing engagement with a nationally implemented digital programme. The National Health Service Digital Diabetes Prevention Programme (NHS-DDPP) is a nine-month digital behavioural intervention, delivered by independent providers. It is offered to adults in England who have been identified as high risk of developing Type 2 diabetes. This study reports engagement with the NHS-DDPP for a cohort of users enrolled onto the programme.

Methods: Anonymous usage data was obtained for a cohort of service users (n = 1,826) enrolled on the NHS-DDPP with three independent providers, between December 2020 and June 2021. Usage data fields were obtained for the following intervention features: self-monitoring and goal setting (via an app), receiving information (via educational articles) and social support (via health coaches and group forum), to allow patterns of usage of these key features to be quantified across the nine-month intervention. Median usage was calculated within nine 30-day engagement periods to allow a longitudinal analysis of the dose of usage for each feature.

Results: App usage declined from a median of 32 minutes (IQR 191) in month one to 0 minutes (IQR 14) in month nine. The magnitude of this decrease varied substantially between providers. Self-monitoring of behaviours (e.g. physical activity, diet) was used a median of 117 times (IQR 451) over the nine-month programme. The group discussion forums were utilised less regularly (accessed a median of 0 times at all time-points).

Conclusions and implications: There are some clear differences between providers which appear likely candidates for this variation in engagement (particularly health coach support). Future research should assess whether engagement with specific features is associated with patient outcomes such as reduced bodyweight.

Biography:

Rhiannon Hawkes

Research Associate, Manchester Centre for Health Psychology.

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Rhiannon's background is in health psychology with interests in health behaviour change to prevent later onset of disease. Over the last five years, she has primarily worked on the NIHR-funded 'DIPLOMA' evaluation of the NHS Diabetes Prevention Programme with Prof David French. During that time, Rhiannon's research has focused on service delivery and fidelity of nationally implemented behaviour change programmes. She is now working on the NIHR-funded 'HEDLINE' evaluation, assessing service delivery and fidelity of a NHS digital self-management intervention for people living with type 2 diabetes.

https://research.manchester.ac.uk/en/persons/rhiannon.hawkes

Presenter 3: Emma McManus

Title: Evaluating the cost-effectiveness of the NHS Diabetes Prevention Programme

Abstract:

The NHS Diabetes Prevention Programme (DPP) was introduced across England from 2016. It targets individuals at high-risk of developing type 2 diabetes, with the aim of preventing or delaying them from going on to develop the condition. The programme was delivered by commercial providers on behalf of NHS England. We seek to estimate the total costs and benefits associated with this nationwide programme to determine whether it is a cost-effective use of resources.

We use data collected by programme providers linked to data from the National Diabetes Audit. We estimate the total cost of all referrals to the programme using commercially sensitive data from provider contracts. We estimate benefits in terms of quality-adjusted life years (QALYs) gained and in terms of number of cases of type 2 diabetes prevented.

Biography:

Emma McManus

Health economist within Health Organisation, Policy and Economics (HOPE), at The University of Manchester.

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Currently, Emma is working on the multi-disciplinary DIPLOMA project, which seeks to evaluate the effectiveness and cost-effectiveness of the NHS Diabetes Prevention Programme.

Emma has strong research interests in the transparency and reproducibility of decision-analytic models used in health economic research. As such, she is pursuing a part-time PhD at the University of East Anglia, exploring the value of replication in health economic decision models.

https://research.manchester.ac.uk/en/persons/emma.mcmanus