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Current Topics & Opinions

Promoting Physical Activity with Hard-to-Reach Women: An Iterative and Participatory Research Study

Within the UK, approximately half of all women are damaging their health due to leading insufficiently active lifestyles[1]. Moreover, it has been suggested that women face unique and/or gender related barriers to physical activity participation[2, 3]. Three in four women are not meeting recommendations of 150 minutes of moderate-vigorous physical activity per-week and twice weekly strength building exercises, which is addressed in the latest update on the Public Health England National Physical Activity framework: *Everybody Active, Every Day: Two years on*[4]. This report emphasises that distinct challenges exist in creating and maintaining active lifestyles for women, which in part is due to inequalities within and between certain demographic groups[5].

'Hard-to-Reach' is a term used to describe a diverse range of groups who often remain unreached by health services[6]. These groups include those women facing socioeconomic disadvantages as well as ethnic minorities. Women within these Hard-to-Reach or unreached groups have the lowest physical activity participation rates in the UK[7]. Furthermore, Hard-to-Reach women have higher risk health profiles than for men, including increased incidence of stroke, type 2 diabetes, obesity and lower life expectancies [1, 8]. This public health issue continues to be unresolved by traditional health services and national campaigns[9] with inactivity related health issues costing the UK £7.4 billion per annum[10].

Community physical activity interventions are a potentially cost-effective solution to the UK's expenditure on inactivity related conditions[11]. Essentially, interventions should adopt a holistic perspective and focus on how the environmental and social determinants impact on physical activity, as well as behavioural factors[4]. An example being Sport England's 'This Girl Can' campaign, which involves holistic interventions and has resulted in 2.8 million women participating in physical activity[4]. However, such widespread campaigns risk the creation of an 'inequality paradox'[12] whereby interventions have a tendency to predominantly recruit high socioeconomic status populations, often middle aged, well-educated white women[13, 14], rather than the

priority groups that stand to benefit most. This results in an increase in inequality and adds to an already growing health gap within society[15].

Priority must be given to overcoming the physical activity inequities Hard-to-Reach women face, which are affected by broader inequalities such as poverty, unemployment and poor education[16]. It is important that those planning interventions need to better understand, identify and work with participants to meet their physical activity needs. Failing to do so may negatively impact on the health profiles of these groups[17]. There is limited guidance aimed at promoting physical activity with Hard-to-Reach women[18], yet it is essential that interventions target this group specifically[14]. National and local physical activity actors and enablers must ensure the needs of Hard-to-Reach Women are not overlooked[17]. Understanding the factors that both limit and enable physical activity along with the situational complexities this group face is essential in shaping effective physical activity interventions[18, 19].

Going forward, the design of an effective physical activity strategy that establishes and meets the needs of Hard-to-Reach women aims to address the important public health issue of inactivity. Bartholomew Eldridge's Intervention Mapping[19] is a iterative planning framework that involves six steps and can be used to provide a rigorous and structured foundation for the development of the physical activity intervention. The first step of Intervention Mapping is to develop a Logic Model of the problem, followed by Step 2: Program Outcomes and Objectives; Logic Model of Change, Step 3: Program Design, Step 4: Program Production, Step 5: Program Implementation Plan and then Step 6: Evaluation plan. As seen in Figure 1 these six steps lead to the development, implementation and evaluation of the intervention. Importantly, establishing the Logic Model of the public health problem is essential, as this subsequently informs later steps in the framework [19].

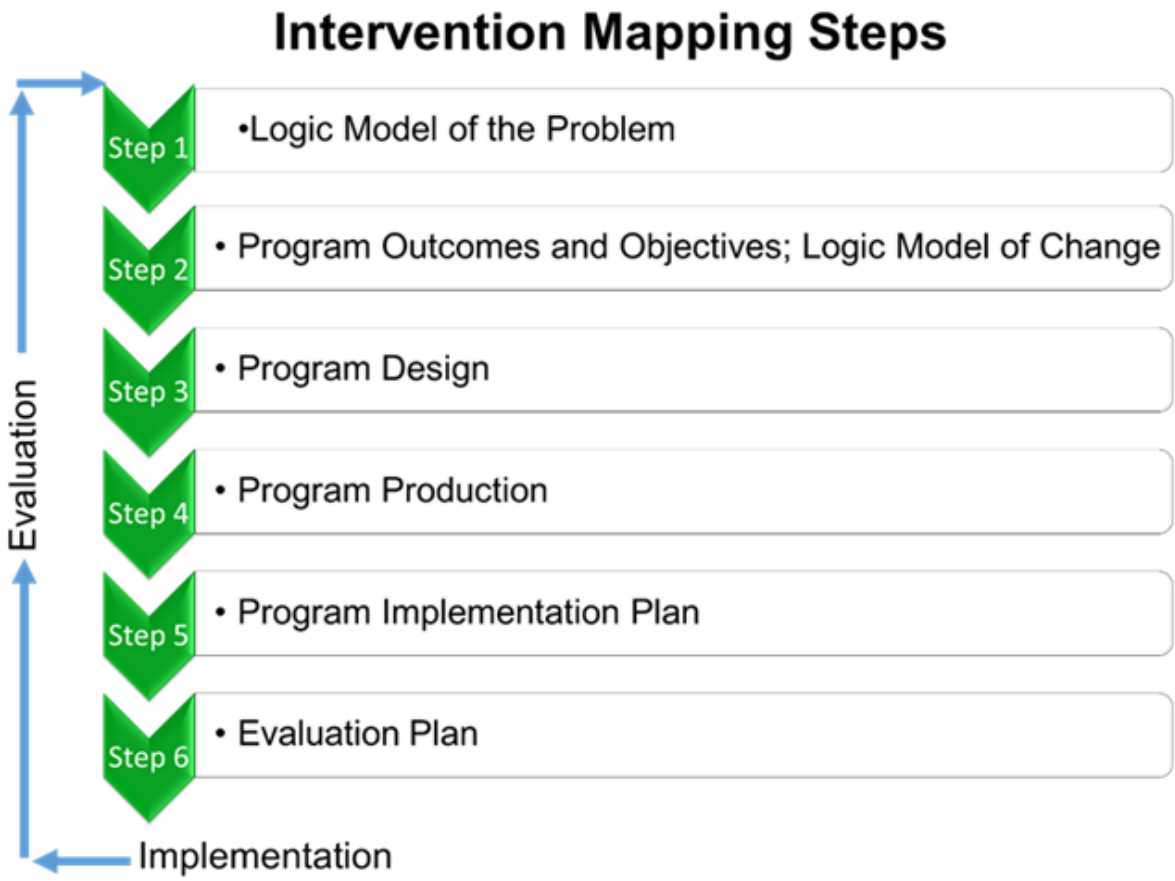

Figure 1 Intervention Mapping Steps: Adapted from Eldredge LKB, Markham CM, Ruiter RA, Kok G and Parcel GS. *Planning health promotion programs: an intervention mapping approach*. John Wiley & Sons, 2016. p.13[19].

This iterative Intervention Mapping framework approach is underpinned by four main perspectives[19]. Firstly, Theory- welcoming multiple theoretical perspectives to understand the public health issue and its impacts; Secondly, Evidence- including empirical research, data, participant opinions and experiences; 3. Ecological models- which view determinants affecting health from a holistic perspective, and 4. Systems thinking- whereby a system is used to help understand a health problem. These underpinning perspectives are included within the practical application of the six steps within Intervention Mapping[19].

The importance of designing interventions that meet the needs and understand the complex and multi-level determinants that impact on physical activity for Hard-to-Reach women is paramount. Therefore, our research adopts an Intervention Mapping approach to address these matters by following the six steps. Thinking about the

effective assessment of the public health problem, in Step One, our initial application of Intervention Mapping will develop the Logic Model of the public health issue. Importantly, Hard-to-Reach women will be at the centre of the research strategy which adopts a participatory approach in the community with perspectives gained by way of interviews, as lay knowledge is a key factor missing from current physical activity policy and guidance[18]. Information provided will be supported with both a review of empirical evidence, as well as incorporating opinions and experiences of Hard-to-Reach women and practitioners regarding physical activity determinants.

The combination of this background information will help develop a comprehensive and pioneering Logic Model of this public health issue. The Logic Model will help to design solutions using an iterative approach, which will be informed and guided by the women we will be working with. Consequently, the project will follow the remaining Intervention Mapping process. Research outcomes will not only include the development of a needs-led and person-centred intervention(s), but also the sharing with stakeholders of the process of how best to plan, implement and evaluate programmes aimed specifically at meeting the needs of Hard-to-Reach women.
Looking forward we aim to share both process and impact outcomes emerging from our research in due course.

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