Exercise on Referral – Symposium hosted by the Physical Activity Special Interest Group of the Wolfson Research Institute for Health and Wellbeing, Durham University, UK

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The Physical Activity Special Interest Group of the Wolfson Research Institute for Health and Wellbeing (Durham University) hosted a symposium focussed on exercise referral schemes (ERS), on 14th October 2016 at the College of St. Hild and St. Bede, Durham, United Kingdom (UK). Exercise referral schemes typically allow health professionals, such as general practitioners, nurses and physiotherapists to refer inactive individuals with long-term health conditions to a third party leisure provider for a supervised exercise programme, with the aim of increasing physical activity levels. The symposium was lively and thought-provoking with presentations divided into two core themes: 'Emerging Evidence for ERS' and 'Future Developments for ERS'.

Exercise referral schemes have increased in popularity since the 1990s to address society's significant chronic disease burden, yet the future of these important programmes is uncertain. Public Health England have criticised the evidence-base for the effectiveness of ERS, owing to the sparse use of randomised controlled trials (RCTs) and substandard evaluation. Recent systematic reviews have questioned the long-term effectiveness and cost-effectiveness of ERS (Campbell *et al.*, 2015; Pavey *et al.*, 2011). The National Institute for Health and Care Excellence (NICE) have provided a number of critical points for consideration in ERS, including 1) a lack of progress in increasing the evidence-base for ERS, 2) calls for more RCTs, 3) routine evaluation data to be made available for analysis, and 4) a better understanding of what elements of current delivery influence success and for whom. In the present climate of austerity, the threat of decommissioning looms, meaning that there is an urgent need to improve knowledge and the quality of evidence about what works.

The following review presents some critical reflections of the symposium from a group of enthused PhD researchers, based upon three themes that emerged which are discussed in turn: the consideration of a bottom-up approach to understanding ERS; the need to promote and understand the application of behaviour change within ERS; the requirement for continuity in evaluation of ERS and translation of findings. This paper concludes by offering brief advice for

maximising the benefits of conferences and symposia, in particular in supporting future ERS evaluation research.

Bottom-up approach

A key theme that emerged during the symposium was the need to understand the complexity of ERS, and the importance of local stakeholder knowledge. It was apparent that a focus on outcome evaluation, to the detriment of exploring why such schemes do or do not work, and in what circumstances, has resulted in NICE adopting a cautious approach in recommending public health commissioning of ERS. In order to plan and implement more effective ERS and realise potential, there is a need to define discrete subpopulations where ERS may be more effective, such as those with certain long-term medical conditions or those of a certain age group. There is also a requirement to define how and why factors identified as facilitators of engagement, such as provider and peer support, scheme location, and exercise habit facilitation (Morgan *et al.*, 2016) work for some, but not others. Arguably, a 'bottom-up' approach, which aims to include a wide range of stakeholders (for example, service-users, referring health professionals, ERS delivery staff and policy-makers) in ERS design and development, may help facilitate understanding of complexity and better implement evidence-based practice.

During the symposium it was suggested that there is a need to ensure a shared expectation of who ERS are suitable for and what might realistically be achieved through participation. In order to achieve standardisation of effective ERS, practitioners need to share and improve current practice through (re)design of schemes via co-production with local stakeholders including commissioners, service providers, users, and health professionals. There is a need to focus future research on the improvement of ERS delivery, with the aim of providing schemes that are appropriate for specific cohorts that ERS are known to successfully engage (for example, older participants). Moreover, there is a requirement to trial different interventions for those whom current ERS fail to engage. For instance, those under 55 years have been reported to be less likely

to engage with, and adhere to, current ERS (Hanson *et al.*, 2013). Alternative ERS models that focus on sport rather than physical activity are currently being tested (Gardner, 2014), but it is not yet known whether such an approach may be better suited to younger participants.

Determined to Promote Behaviour Change

A consistent theme throughout the symposium was the potential role for behaviour change theory in delivering more successful ERS interventions; an area highlighted as a commissioning requirement in NICE guidance. For example, there is a wealth of evidence for the use of self-determination theory (SDT; Deci & Ryan, 1985; 2000) as a predictor for physical activity behaviour change (Teixeira *et al.*, 2012) and there is some evidence to support its use as a framework for ERS (Littlecott *et al.*, 2014). Self-determination theory promotes the cultivation of inherent enjoyment towards physical activity, and during the symposium there was much discussion about the potential to foster the three SDT constructs of competence, autonomy and relatedness within ERS through appropriately trained practitioners. Unfortunately, the application of behaviour change techniques in ERS appears to be limited in practice (Beck *et al.*, 2016; Duda *et al.*, 2014; Moore *et al.*, 2011). Therefore, the identification of promising behaviour change techniques (such as motivational interviewing, guided goal setting, problem solving and action planning) within the (re)design of interventions could lead to more successful ERS. In order to increase the likelihood of implementation fidelity, such techniques must be considered to be appropriate and feasible by practitioners. This must be combined with behaviour change specific staff training, which requires commitment of time and resource from commissioners and provider management. Although currently the embedding of such theories within ERS appears to be sporadic, we were enthused by the possibilities for improving practice and felt optimistic that this was a potentially fruitful area to focus future research.

Evaluation and Translation

Evaluation of schemes was a major feature of the symposium, with lively debate about what variables should be reported. Guidance from NICE recommends that ERS collect a core set of data to be made available for evaluation purposes. Furthermore, NICE suggest that heightened effort is required to understand whether ERS are more successful for certain population subgroups, for example, those who are older and those referred due to cardiovascular disease. Mann (UK Active) presented plans for a new national database for ERS, including engagement data, well-being measures, physical activity levels and physiological measures, such as blood pressure. In contrast, Buxton (British Heart Foundation National Centre for Physical Activity) suggested that the primary aim of ERS was to change physical activity behaviour, and, given that the evidence for the health benefits of physical activity is well established, this should be the sole measure of success.

During the symposium two areas for future ERS research were highlighted. First, Medical Research Council (2000) guidance suggests that the widespread natural development of ERS has meant a failure to sufficiently evaluate at pilot and later stages. Therefore, factors such as poor intervention design and fidelity within ERS have not been addressed before the assessment of effectiveness via RCTs. In any case, the Medical Research Council has recommended that RCTs may not be the most appropriate way to assess complex interventions and alternative methods of evaluation should be considered (Craig *et al.*, 2008). For example, realistic evaluation (Pawson & Tilley, 1997), which includes both outcome analysis and an investigation of stakeholder interpretation of implementation, may provide a more appropriate way of understanding the 'active ingredients' of success within ERS. Such a mixed methods approach has already been implemented in the assessment of the Welsh National ERS (Moore *et al.*, 2013), providing insight into crucial functions of ERS implementation. Once there is a better understanding of the successful components of ERS, redesigned pilot interventions could be robustly evaluated with a focus on physical activity behaviour change.

Second, there are complex local factors. There may also be a disparity between what is considered as pertinent to improve the ERS evidence-base from an academic standpoint, compared to what is considered pertinent by commissioners and health professionals with regards to the recommissioning of schemes. As researchers we need to be aware of the way in which key stakeholders use research evidence within particular contexts. Therefore, researchers need to consider how to better-disseminate attractive and accessible evidence that showcases 'what works' in a cost-effective manner.

These factors represent the complexity of ERS and the challenges now faced by service providers and researchers. These cannot be ignored, not least in times of heightened requirements for evaluation-informed practice and policy-making. Sharing critical perspectives, ideas and enthusiasm about ERS during the symposium meant that we left with a sense of collective responsibility and cautious optimism towards the potential for such schemes. Adopting a *"glass half-full perspective",* we feel that there are opportunities to undertake research to enable the co-creation of improved, more targeted schemes. The symposium highlighted the need for those involved with ERS (commissioners, practitioners and researchers) to work together to share good practice, disseminate research beyond academic publication to improve community level impact, and support unambiguous policy-making. Importantly, we need to ensure our future ERS research is sufficiently rigorous and reflects the complexities of such schemes.

Making Conferences and Symposia Count

For some of us this was our first symposium as we are at the start of our doctoral journeys. Conferences and symposia offer PhD students important enrichment to our often 'isolated' study. We fully recommend others speak to supervisors about attending relevant events. The opportunity and benefits which may arise from presenting to, and networking with, experts in your field cannot be underestimated. To get the most out of such opportunities it may be helpful to have a checklist of people to liaise with, or specific points you want to find out. It is

beneficial to use the agenda to plan your day, and to take action as a result of what you have learnt. Borne out of our enthusiasm generated by the symposium was a recognition of the need to stimulate robust conversation and advocate the potential of ERS. We opted to share our experiences by writing this review and hope that this commentary may provide a stimulus for debate around ERS more generally.

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