

Intervention Development for the MAintAin Physical Activity in Arthritis Study

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Purpose: Despite evidence demonstrating the health benefits of physical activity (PA), people with arthritis do not meet recommended PA levels. Whilst various exercise programmes support people with arthritis to become active, most individuals reduce their PA levels after completion. These programmes may lack the necessary behaviour change components for PA maintenance, such as becoming autonomous and creating new habits. This research aims to develop a PA maintenance intervention for those with arthritis, after exit from a structured exercise programme.

Methods: Intervention development is informed by the Medical Research Council (MRC) framework, and the category three approach of the “IdentifyiNg and assessing different approaches to DEveloping compleX interventions” (INDEX study). In the category three approach, our underpinning intervention theory, intervention components and mediators for a ‘logic model’ are informed by a literature review, direct observation of behaviour change techniques (BCTs) in supervised exercise classes (n = 13) delivered by four physiotherapists, and focus groups (n = 2) with those who attended these classes.

Results: Given the lack of consensus on underpinning theory for PA maintenance, we used the Behaviour Change Wheel and the Theoretical Domains Framework (TDF) to inform intervention development. Two researchers independently mapped barriers and facilitators to PA maintenance identified in our qualitative data to the TDF. We used the “Theory & Techniques Tool” to identify potentially effective BCTs; supplemented by literature sources: we extracted key information from our own work, from condition specific, behaviour change, and PA guidelines, theoretical papers on maintenance behaviour, and reviews/trials of PA maintenance interventions. We also considered BCTs linked to PA maintenance observed in the exercise classes. We developed a logic model which helped inform process outcomes we will measure in a future feasibility study. Intervention components will include self-regulatory skills, social support, habit formation, planning, and relapse prevention.

Conclusion: PA maintenance is critical to sustain benefits of exercise programmes. We describe the development process for a PA maintenance intervention, after exiting a structured exercise programme. As the population ages, there will be more people living with arthritis and it is important that we find effective ways to support long-term PA to protect long-term health.

