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Thesis abstract

Preventing low back-pain recurrence

Natasha Pocovi

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Low back pain is a common and recurrent condition. To alleviate the burden of low back pain, it is critical to focus on preventing recurrences. Current evidence suggests that exercise with education may help prevent recurrences; however, there is a lack of evidence on the effectiveness of easily accessible and low-cost exercises, such as walking, cycling and swimming. Currently, it is also not possible to accurately predict the likelihood of experiencing a recurrence, which may affect when a patient is offered preventive management. The research contained in this thesis aimed to bridge these gaps.

Chapter Two presents a systematic review of the evidence for walking, running, cycling and swimming to treat and prevent low back pain. The study found these exercises generally provide less benefit than more intensive and targeted alternative interventions (such as physiotherapy and Pilates) but offer more benefit than minimal or no intervention for treating low back pain. The systematic review identified no trials investigating these exercise modes for preventing low back pain. Chapters Three, Four, and Five present the first randomised controlled trial (the WalkBack Trial) of an individualised, progressive walking and education intervention to prevent low back pain recurrences. The trial found that walking and education effectively prevented low back pain recurrences compared to no intervention. The intervention is also highly likely cost-effective and did not increase the overall number of adverse events. Chapter Six presents a qualitative study conducted with a sample of people who participated in the WalkBack intervention to identify motivators for engaging in the prevention-based intervention and identify which elements of the intervention were critical to optimising participant adherence. The study found that the potential prevention of low back pain and anticipated overall health benefits were crucial factors for initially engaging in the intervention. Accountability, diarising activity, and the support of the physiotherapist to coach and progress participants were also important in optimising initial adherence to the intervention. Chapter Seven presents a study that aimed to develop a clinical prediction model to investigate the risk of recurrence in adults who recently recovered from an episode of low back pain. The model's predictive ability was insufficient to recommend its use in clinical practice, highlighting the need for further investigations in this area. In this thesis, an effective, accessible, and low-cost walking and education intervention that significantly reduced recurrences of low back pain has been identified, providing an important advancement in the field of low back pain prevention.

Dr Natasha Pocovi
Macquarie University Lighthouse
Research Fellow
Department of Health Sciences
Macquarie University

E-mail: tash.pocovi@mq.edu.au

URL: https://figshare.mq.edu.au/articles/thesis/Preventing_Low_Back_Pain_Recurrence/25633824?file=58900330