

The Effectiveness of Incidental Physical Activity Interventions Compared to Other Interventions in the Management of People with Low Back Pain: A Systematic Review and Meta-Analysis

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Abstract : Objective: To investigate the effectiveness of incidental (non-structured) physical activity interventions compared with other commonly prescribed interventions for the management of people with low back pain (LBP). Methods: We performed a systematic review with meta-analyses of eligible randomized controlled trials obtained by searching Medline, Scopus, CINAHL, EMBASE, and CENTRAL. This review considered trials investigating the effect of incidental physical activity interventions compared to other interventions in people aged 18 years or over, diagnosed with non-specific LBP. Analyses were conducted separately for short-term (≤ 3 months), intermediate-term (> 3 and < 12 months), and long-term (≥ 12 months), for each outcome. The analyses were conducted using the weighted mean difference (WMD). The overall quality of evidence was assessed using the GRADE system. Meta-analyses were only performed for pain and disability outcomes as there was insufficient data on the other outcomes. Results: For pain, the pooled results did not show any significant effects between the incidental physical activity intervention and other interventions at any time point. For disability, incidental physical activity was not statistically more effective than other interventions at short-term; however, the pooled results favored incidental physical activity at intermediate-term (WMD= -6.05, 95% CI: -10.39 to -1.71, $p=0.006$) and long-term (WMD= -6.40 95% CI: -11.68 to -1.12, $p=0.02$) follow-ups among participants with chronic LBP. The overall quality of evidence was rated "moderate quality" based on the GRADE system. Conclusion: The incidental physical activity intervention provided intermediate and long disability relief for people with chronic LBP, although this improvement was small and not likely to be clinically important.

Keywords : physical activity, incidental, low back pain, systematic review, meta-analysis

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