

The effect of motor control exercises versus graded activity in patients with chronic low back pain: a randomised controlled trial

Question: Is motor control exercise more effective than graded activity in improving pain and function for patients with chronic low back pain?

Design: Randomised controlled trial with concealed allocation, assessor blinding and intention-to-treat analysis. Participants: 172 individuals who had non-specific low back pain of >12 weeks duration.

Intervention: Participants in both groups received 12 sessions of individualised supervised exercise over 8 weeks with follow-up sessions at 4 and 10 months. The motor control exercise program was based upon that reported by Hodges et al and the graded activity program was based upon that reported by Lindstrom et al.

Outcome measures: Primary outcomes were average pain intensity over the last week (0 to 10 scale) and function (0 to 10 Patient Specific Functional Scale) measured at 2, 6 and 12 months. Secondary outcomes were patient's global impression of change, disability, quality of life and durable recovery. All data were double-entered and blinded analyses performed on a locked data file.

Results: Follow-up was greater than 90% at all time points. The estimates of treatment effects from the mixed linear models revealed that there were no statistically significant, or clinically important, differences between treatment groups for any of the outcomes at any of the time point. For example at 2 months the effect on pain was -0.01 (-0.8 to 0.8) and for function was 0.2 (-0.5 to 0.9).

Conclusion: Motor control exercise and graded activity have similar effects for patients with chronic low back pain. Trial registration: ACTRN1260700043215.