An 8 session exercise programme was effective for subacute or chronic low back pain


QUESTION: In patients with subacute or chronic low back pain, does a community exercise programme help them return to normal activities?

Design
Randomised [allocation concealed]*,†, blinded [outcome assessors],*† controlled trial with 1 year follow up.

Setting

Patients
187 patients who were 18 to 60 years of age (mean age 42 y, 57% women), had mechanical low back pain for ≥4 weeks but < 6 months, and were deemed medically fit for exercise by their general practitioners (GPs). Exclusion criteria included serious spinal pathological findings, concurrent use of physiotherapy, or inability to attend exercise classes. Follow up was 87% and 91% at 6 and 12 months, respectively.

Intervention
Patients were allocated to an exercise program, 8 one hour sessions over 4 weeks (n = 89) or to a control group (n = 98). The exercise program consisted of stretching, low impact aerobic, and strengthening exercises aimed at all main muscle groups; cognitive behavioural principles were used in these sessions to promote self reliance. Patients in the control group received standard care from their GPs.

Main outcome measures
Functional limitation (24 point Roland back pain disability questionnaire), clinical status (Aberdeen back pain scale), quality of life (EuroQoL health index and the Fear-Avoidance Beliefs Questionnaire), use of health care services, and costs.

Main results
Patients in the exercise programme had greater improvement in function than did those in the control group at 6 months and 12 months (difference in mean change from baseline scores on Roland questionnaire 1.35, 95% CI 0.13 to 2.57 at 6 mo; 1.42, CI 0.29 to 2.56 at 1 y) (table). The exercise program also led to better improvement in function than did usual care at 12 months than did those in the control group (RBI 1.35, 95% CI 0.13 to 2.57 at 6 mo; 1.42, CI 0.29 to 2.56 at 12 mo). The authors suggest that patients with low back pain are afraid to move, which delays recovery. The goal of the self reliance counselling included in their classes was to avoid the adoption of the “sick role” by patients. This approach makes sense in light of the link between low back pain, depression, and somatic illnesses. Using a cognitive behavioural model to promote early recovery (before the sick role is firmly entrenched) is a strategy that could help in this common cause of disability.

Conclusion
In patients with subacute or chronic low back pain, a community exercise programme improved function and clinical status at 12 months.

COMMENTARY
Convincing evidence shows that exercise of any kind is not useful for acute low back pain. Instead, patients tend to do best when they continue their usual daily routines. Conversely, high quality studies show exercise to be effective in low back pain >6 months in duration. The study by Moffett and colleagues evaluated the role of exercise in patients with subacute to chronic pain (lasting from 4 wk to 6 mo). This period was chosen because the rate of recovery tends to slow at 4 weeks. The exercises used by the authors are described in a previous article and can be easily replicated.

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Outcomes Exercise Control RBI (95% CI) NNT (CI)
3 point improvement at 6 mo 60% 40% 51% (10 to 109) 5 (3 to 21)
3 point improvement at 12 mo 64% 35% 81% (32 to 154) 4 (3 to 8)

†Information supplied by author.
‡Abbreviations defined in glossary; RBI, NNT, and CI calculated from data in article.

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Improvement on the Roland back pain disability questionnaire for a community exercise programme v usual care for low back pain.