

Multidisciplinary Bio-Psycho-Social Rehabilitation for Chronic Low Back Pain

Guzmán J, Esmail R, Karjalainen K, Malmivaara A, Irvin E, Bombardier C. Multidisciplinary Bio-Psycho-Social Rehabilitation for Chronic Low Back Pain (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2002. Oxford: Update Software.

A substantive amendment to this systematic review was last made on 12 October 2001. Cochrane reviews are regularly checked and updated if necessary.

Background: Chronic low back pain is, in many countries, the main cause of long term disability in middle age. Patients with chronic low back pain are often referred for multidisciplinary treatment. Previous published systematic reviews on this topic included no randomised controlled trials and pooled together controlled and non-controlled studies.

Objectives: To assess the effect of multidisciplinary bio-psycho-social rehabilitation on pain, function, employment, quality of life and global assessment outcomes in subjects with chronic disabling low back pain.

Search strategy: We searched MEDLINE, EMBASE, PsychLIT, CINAHL, Health STAR, and The Cochrane Library from the beginning of the database to June 1998 using the comprehensive search strategy recommended by the Back Review Group of the Cochrane Collaboration. Intervention specific key words for this review were: patient care team, patient care management, multidisciplinary, interdisciplinary, multiprofessional, multimodal, pain clinic and functional restoration. We also reviewed reference lists and consulted the editors of the Back Review Group of the Cochrane Collaboration.

Selection criteria:

Design: randomised controlled trials comparing multidisciplinary bio-psycho-social rehabilitation with a non-multidisciplinary control intervention. **Population:** Adults with disabling low back pain of more than three months in duration. **Intervention:** Patients had to be assessed and treated by qualified professionals according to a plan that addresses physical and at least one of psychological, or social/occupational dimensions. **Outcomes:** Only trials which reported treatment effect in at least one of pain,

function, employment status, quality of life or global improvement. **Exclusion:** Pure educational interventions (back schools) and pure physical interventions were excluded.

Data collection and analysis: Selection, data extraction and quality grading of studies was done by two independent reviewers using pre-tested data forms. Study quality was assessed according to the scheme recommended by the Back Review Group of the Cochrane Collaboration. Trials with internal validity scores of five or more in a ten point scale were considered high quality. Discrepancies between reviewers were resolved by consensus or by a third reviewer. Given the marked heterogeneity in study settings, interventions and control groups we decided not to pool trial results in a meta-analysis. Instead, we summarized findings by strength of evidence and nature of intervention and control treatments. The evidence was judged to be strong when multiple high quality trials produced generally consistent findings. It was judged to be moderate when multiple low quality or one high quality and one or more low quality trials produced generally consistent findings. Evidence was considered to be limited when only one randomised trial existed or if findings of existing trials were inconsistent.

Main results: Ten trials (12 randomised comparisons) were included. They randomised a total of 1964 patients with chronic low back pain. There was strong evidence that intensive multidisciplinary bio-psycho-social rehabilitation with a functional restoration approach improved function when compared with inpatient or outpatient non-multidisciplinary treatments. There was moderate evidence that intensive multidisciplinary bio-psycho-social rehabilitation with a functional restoration approach improved pain when compared with outpatient non-multidisciplinary rehabilitation or usual care. There was contradictory evidence regarding vocational outcomes of intensive multidisciplinary bio-psycho-social intervention. Some trials reported improvements in work readiness, but others showed no significant reduction in sickness leaves. Less intensive outpatient psycho-physical treatments did not improve pain, function or vocational outcomes when compared with non-multidisciplinary outpatient therapy or usual care. Few trials reported effects on quality of life or global assessments.

Reviewers' conclusions: The reviewed trials provide evidence that intensive multidisciplinary bio-psycho-social rehabilitation with a functional restoration approach improves pain and function. Less intensive interventions did not show improvements in clinically relevant outcomes.

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Advice to stay active as a single treatment for low back pain and sciatica

Hilde G, Hagen KB, Jamtvedt G, Winnem M. Advice to stay active as a single treatment for low back pain and sciatica (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2002. Oxford: Update Software

A substantive amendment to this systematic review was last made on 03 July 2001. Cochrane reviews are regularly checked and updated if necessary.

Background: Low back pain is one of the most common conditions managed in primary care. Restricted activity, rest, and symptomatic analgesics are the most commonly prescribed treatment for low back pain and sciatica.

Objectives: To assess the effects of advice to stay active as single treatment for patients with low back pain.

Search strategy: Computerised searches in MEDLINE, EMBASE, Sport, The Cochrane Controlled Trials Register, Musculoskeletal Group's Trials Register and Scisearch, and scanning of reference lists from relevant articles were undertaken. Relevant studies were also traced by contacting authors. **Date of the most recent searches:** December 1998.

Selection criteria: We included all randomised trials or quasi-randomised trials where the study population consisted of adult patients with low back pain or sciatica, in which one comparison group was advised to stay active. The main outcomes of interest were pain, functional status, recovery and return to work.

Data collection and analysis: Two reviewers independently selected trials for inclusion, assessed the validity of included trials and extracted data. Investigators were contacted to collect missing data or for clarification when needed.

Main results: Four trials, with a total of 491 patients, were included. Advice to stay active was compared to advice to rest in bed in all trials. Two trials were assessed to have low risk of bias and two to have moderate to high risk of bias. The results were heterogeneous. Results from one high quality trial of patients with acute simple LBP found small differences in functional status [Weighted Mean Difference (on a 0–100 scale) 6.0 (95% CI: 1.5, 10.5)] and length of sick leave [WMD 3.4 days (95% CI: 1.6, 5.2)] in favour of staying active compared to advice to stay in bed for two days. The other high quality trial compared advice to stay active with advice to rest in bed for 14 days for patients with sciatic syndrome, and found no differences between the groups. One of the high quality trials also compared advice to stay active with exercises for patients with acute simple LBP, and found improvement in functional status and reduction in sick leave in favour of advice to stay active.

Reviewers' conclusions: The best available evidence suggests that advice to stay active alone has small beneficial effects for patients with acute simple low back pain, and little or no effect for patients with sciatica. There is no evidence that advice to stay active is harmful for either acute low back pain or sciatica. If there is no major difference between advice to stay active and advice to rest in bed, and there is potential harmful effects of prolonged bed rest, then it is reasonable to advise people with acute low back pain and sciatica to stay active. These conclusions are based on single trials.

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