Manual Therapy, Physiotherapy, or Usual Care for Back and Neck Pain?


Objective
To determine the effectiveness of manual therapy, physiotherapy, and continued treatment by a general practitioner (GP) for patients with nonspecific back and neck pain for ≥6 weeks.

Design
Randomized, single-blind, placebo-controlled trial of 3 months duration.

Setting
Primary care in The Netherlands.

Patients
256 patients (mean age, 43 y) who had been in pain or had had self-reported limited range of motion in the back or neck for ≥6 weeks were included. Exclusion criteria were suspected underlying disease; administration of physiotherapy or manual therapy for back or neck pain during the previous 2 years; pregnancy; inability to speak or read Dutch; or failure to reproduce the symptoms by active or passive movements during physical examination. 233 patients (91%) completed the study.

Intervention
Patients were assigned to manual therapy (n = 65), physiotherapy (n = 66), continued treatment by a GP (n = 61), or placebo therapy (detuned ultrasound and detuned short-wave diathermy) (n = 64).

Main outcome measures
Severity of the main symptom, global perceived effect, pain, and functional status measured at 3, 6, and 12 weeks follow-up.

Main results
Patients in all groups improved in all outcome measures at the 3 follow-up assessments. In an intention-to-treat analysis, the mean improvement (as measured on a 10-point scale) of the main symptom at 6 weeks was greater for patients receiving manual therapy (1.2; 95% CI, 0.4 to 2.1); physiotherapy (1.2; CI, 0.3 to 2.0); and placebo therapy (0.8; CI, 0.0 to 1.7) when compared with continued treatment by a GP. These differences disappeared at 12 weeks. The mean increase in the score for perceived effect (as measured on a 6-point scale) at 6 weeks was also greater for patients receiving manual therapy (1.7; CI, 1.2 to 2.2); physiotherapy (1.4; CI, 0.9 to 1.9); and placebo therapy (0.9; CI, 0.5 to 1.4) when compared with continued treatment by a GP. These differences were still statistically significant at 12 weeks. All other comparisons for outcome measures were not statistically significant.

Conclusion
Manual therapy and physiotherapy were more effective treatments for nonspecific back and neck symptoms than continued treatment by a general practitioner, but were not more effective than treatment with placebo ultrasound and diathermy.

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Commentary
The study by Koes and colleagues adds to the mounting evidence that spinal manipulation is an effective treatment for nonspecific neck and back pain. In this study, the effect was not dramatic, and follow-up was limited to 12 weeks in patients with an average 1-year history. The authors made a systematic effort to analyze the flaws in previous studies and managed to avoid most (1). However, the interpretation and generalizability of intervention studies in back pain remains problematic. “Back and neck complaints” does not correspond to a well-defined organic diagnosis, and “manual therapy” is not a standardized intervention. It is, therefore, surprising that an increasing number of studies have been able to detect efficacy. Koes and colleagues are to be commended for choosing outcome measures that are clinically meaningful and that take the patients’ perspectives into account. Any study that measures subjective “complaints” or symptoms, however, is faced with the challenge of interpreting whether the size of a statistically significant change in scores translates into a clinically important difference.

Given the high socioeconomic cost of neck and back pain and the dearth of validated effective therapies, a physician should no longer feel bashful about sending a patient for manipulation. In fact, in this study, GP therapy was inferior to placebo for some outcomes, which suggests that more harm than good might be done by some GPs who attempt to treat this condition.

Several important issues, however, still need to be addressed. Are there any clear indications and contraindications to spinal and soft-tissue manipulation for back and neck pain? Which elements of the various procedures contribute to clinical improvement? How do the various techniques differ in efficacy and indication? How long does any beneficial effect last? Is manipulation cost effective? More studies are required before we will confidently know which treatment options to offer to which patients.

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Reference

Therapeutics