

# For Low Back Pain, Chiropractic Care and McKenzie-Style PT Only Slightly Better Than One-Dollar Booklet

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## Introduction

In one of the more carefully conducted randomized trials of nonsurgical back pain treatments undertaken in recent years, researchers say two of the most widely employed therapies -- chiropractic manipulation and McKenzie physical therapy -- are only marginally more effective than a one-dollar educational booklet. Both therapies provided patients with slightly greater pain relief than the booklet. But neither of the treatments offered a significant functional benefit. The big differences between treatments? Patient satisfaction and cost.

"Whether the limited benefits of chiropractic and physical therapy are worth the additional costs is open to question," conclude Daniel C. Cherkin, PhD, of Group Health Cooperative of Puget Sound and co-authors from Seattle and Edmonton, Alberta. (See Cherkin et al., 1998.)

Although the primary care of back pain is a huge industry involving tens of millions of doctor visits every year, it is an industry in flux, without a scientifically validated, standardized treatment approach. According to some statistics, chiropractors treat as many as 40% of all patients with back pain in the U.S. The McKenzie protocol is arguably the most popular back pain treatment method among physical therapists in the U.S.

Will any model dominate the care of uncomplicated back pain in the future?

Judging from their past tendencies, managed care organizations will favor programs that are inexpensive, popular with patients, and capable of reducing the long-term cost of back care.

Unfortunately, suggests the new study, such a therapy remains elusive.

## Symptoms Slightly Better, but Not Function, Recurrences

Cherkin et al. randomized 321 adults with low back pain to one of the two active therapies or the booklet. The majority of patients had had back pain for less than six weeks, and 59% had had back pain for less than three weeks. The therapies were provided for one month, and patients were limited to a maximum of nine visits. The booklet discussed causes of back pain, prognosis, appropriate use of imaging studies and specialists, and activities for promoting recovery and preventing recurrences. Investigators followed the patients for a total of two years.

Four weeks after the initiation of therapy, Cherkin et al. found that both manipulation and McKenzie therapy led to a slight reduction in symptom "bothersomeness," compared to the booklet. This advantage

worked out to only about one point on an 11-point scale.

Neither treatment ever achieved the predefined criterion for clinically important symptom relief of 1.5 points in improvement. By 12 weeks and beyond, even the one-point advantage disappeared.

In measures of function and disability, the hands-on therapies were even less impressive. Compared to patients who received the booklet, those who underwent chiropractic manipulation and McKenzie-style therapy failed to show any statistically significant advantage at one, four, 12, or 52 weeks.

## Major Differences in Satisfaction and Cost

One of the most important tests of a therapy's efficacy is how it affects back problems over the long term. McKenzie proponents have argued that their protocol reduces recurrences of back pain and decreases utilization of services. In this study, however, recurrences of back pain were comparable in all three groups.

"This casts doubt on the ability of the self-care-oriented McKenzie physical therapy to reduce the utilization of services," suggest the researchers. "There was no evidence that the higher initial costs of the physical treatments were offset by later savings," they add.

"The main benefit of chiropractic and physical therapy for patients with low back pain appears to be increased satisfaction with care," says co-author Richard Deyo, MD, of the University of Washington in Seattle. Both therapies were clearly superior to the booklet in this category.

"About 75% of the subjects in the therapy groups rated their care as very good or excellent, as compared with about 30% of the subjects in the booklet group," observe Cherkin et al.

The high levels of patient satisfaction and slight reduction in symptoms associated with the two therapies came at a premium, however. "Over a two-year period, the mean costs of care were \$437 for the physical therapy group, \$429 for the chiropractic group, and \$153 for the booklet group," according to Cherkin et al.

## What Constitutes Effective Back Care?

Cherkin et al. hint that the benefits of the treatments in this study could be the result of an attention placebo effect. "The marginally better outcome of the physical treatments raises the possibility that effects were nonspecific," they point out. "Patients may find [contact with providers] satisfying, and this may affect their perception of symptoms." To test this hypothesis, investigators would need to compare these therapies to a sham therapy.

"Before we judge this too harshly," says Paul G. Shekelle, MD, PhD, in an accompanying editorial, "we must remember that many existing medical interventions currently paid for by insurance companies provide equally small benefits or even none at all (for example, ultrasonographic therapy for shoulder disorders and epidural injections of corticosteroids for sciatica)." (See Shekelle, 1998.)

Shekelle believes this study confirms previous findings that spinal manipulation is "a somewhat

effective symptomatic therapy for some patients with acute low back pain."

## Money Talks

The study by Cherkin et al. raises interesting questions about what constitutes cost-effective health care. If function is the most important outcome, then neither the McKenzie nor chiropractic treatments appears to be cost-effective. If pain relief is the most important outcome, both therapies appear to be fairly expensive ways to achieve relatively little relief.

How valuable is satisfaction? Are health plans in business to satisfy patients, even if patient satisfaction doesn't correspond to objective clinical outcomes?

Can managed care organizations afford to embrace these two treatment methods? Or will an accountant at an HMO look at the one-dollar educational booklet that produced similar long-term results and say, "Hey, I think we've got something here."?

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## References

- Cherkin DC et al., A comparison of physical therapy, chiropractic manipulation, and provision of an educational booklet for the treatment of patients with low back pain, *New England Journal of Medicine*, 1998; 339:1021-9.
- Shekelle PG, What role for chiropractic in health care? *New England Journal of Medicine*, 1998; 339:1074-5.