

Insights Into Chiropractic

Discerning the true nature of an alternative health care method

Is Chiropractic Treatment Really No Better Than A \$1 Pamphlet?

INTRODUCTION

Spinal manipulation for the treatment of back pain is one of the most often studied clinical interventions in all of the health care sciences. In fact, no less than thirty-seven prospective randomized clinical trials exist in the indexed scientific literature on the subject(1).

Although one of the most often studied clinical interventions in the health care sciences, yet another prospective randomized trial appeared in the October 8, 1998 edition of the **New England Journal of Medicine** (2) which attempted to compare three clinical interventions for the treatment of low back pain: chiropractic manipulation, the McKenzie method of physical therapy, and a \$1 educational pamphlet.

Based on their findings, the authors concluded that both chiropractic manipulation and the McKenzie method of physical therapy are little better than provision of a \$1 educational pamphlet, and that whether or not the limited benefits of such additional treatment are warranted is open to question. A closer examination of the authors' data, however, demonstrates some interesting findings that cannot readily be ascertained by a casual reading of the article or by simply reading the study's abstract.

A CRITICAL ANALYSIS OF THE NEJM(2) STUDY

Although the authors of the study state that there were few significant differences between the base-line characteristics of the three subject groups in the study, a careful examination of the make-up of

each group reveals some interesting findings.

For example, when comparing the base-line statistics of the subjects who received chiropractic manipulation to the \$1 pamphlet subjects, the chiropractic subjects: 1) had a greater number of subjects who were smokers, 2) had worse general health perceptions scores, 3) had more prior episodes of low back pain, 4) had more severe pain (based on both the bothersome and Roland Disability scales), 5) had received inappropriate treatment prior to chiropractic referral (i.e. more chiropractic subjects had bed rest), 6) had lost more time from work due to back pain, 7) were more restricted in their usual activities due to pain, and 8) were taking narcotic analgesics and other medications for their pain. In other words, the patients assigned to treat with chiropractors had more known factors associated with a poor prognosis and were in generally worse shape than those who received the \$1 pamphlet(2, their Table 1).

In spite of this fact, the scores used to assess outcome (Bothersomeness of symptoms scales & Roland Disability Scales) were clearly better for the chiropractic patients than for the other groups at both the four and twelve week follow-ups (their Table 3). The percentage of subjects using pain medications also decreased significantly more for the chiropractic subjects than the other subjects-82% to 18% for chiropractic group, 84% to 27% in the physical therapy group, and 77% to 32% in the pamphlet group.

The study also included an eleven month follow-up period. The authors state that a smaller per-

centage of subjects reported that they had to reduce their activities as a result of back pain, a smaller percentage reported the need for bed rest, and a smaller percentage reported missing time from work if they received chiropractic treatment, as compared to the physical therapy and pamphlet groups.

The authors also report on the costs of the various treatments and question whether the benefits achieved are worth the additional costs involved with chiropractic or McKenzie physical therapy. In-so-far as comparing the chiropractic treatment to physical therapy, if one excludes the cost of x-rays from the total chiropractic treatment cost (as was done for the cost of physical therapy), the average cost per session was \$27 for the chiropractic patients and \$48 for the physical therapy patients. The overall average total cost for treatment (excluding diagnostic x-ray) was \$186 for chiropractic patients and \$238 for physical therapy patients. The total costs for the \$1 pamphlet group were reported as \$153.

Additionally, 75% of patients who treated with chiropractors or physical therapists rated the quality of their care as good to excellent, while only 30% of the patients receiving the \$1 pamphlet rated their care as good to excellent.

Although this study is an interesting look at three different methods of approaching the treatment of low back pain, the ability to generalize the findings of the study to general practice have to be questioned. First, chiropractors were not permitted to use any other physical modalities beyond spinal manipulation and were prohibited from prescribing lumbar extension exercises for their patients, since lumbar extension exercises are a mainstay of the McKenzie method. Second, the study states that the physical therapists were, ". . . asked to avoid adjuncts such as heat, ice, transcutaneous electrical nerve stimulation, ultrasonography, and back classes(2)," however, the use of such modalities was not prohibited and the study fails to report the extent to which the physical therapists' used such treatments in addition to the McKenzie method.

In other words, patients receiving the chiropractic treatment were required to receive the lowest level of service possible from the chiropractors, while this same limitation was not explicitly placed on the physical therapists. In spite of this fact, the chiropractic patients' outcome scores, use of pain medications, levels of restricted activity, need for bed rest, and number of days of missed work due to back pain were all better than both the physical therapy group and the \$1 pamphlet group.

If one takes the time to read this study closely, it appears that the results reported in the abstract do not explicitly match those reported in the body of the study, itself.

CONCLUSION

The findings reported in the October 1998 New England Journal of Medicine study regarding chiropractic treatment may not be as profound as some would like to believe. The overwhelming preponderance of the evidence still falls solidly on the side of chiropractic treatment. The preponderance of the evidence is what led the panel of experts that produced the Agency for Health Care Policy and Research (AHCPR) guidelines on the treatment of low back pain in adults to conclude that spinal manipulation in combination with over the counter NSAIDs was the safest and most effective treatment. Even if the reported findings from this one study from the October 1998 New England Journal of Medicine are valid, this single study does little to tip the scales of evidence when compared to the voluminous number of prospective randomized controlled trials in chiropractic manipulation's favor.

Finally, because chiropractic manipulation has been shown to be clinically effective(1,3-16), cost-effective(12,13,15-17), and safe(1,10,19), with high levels of patient satisfaction(11,14,18-20), it seems logical that a clinical trial of chiropractic treatment should perhaps be the standard of care for patients with conditions known to be responsive to such interventions.

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