

## Training MDs to Adjust Offers "Little Extra Benefit," Study Says

Editorial Staff

The long-awaited study of "teaching MDs how to adjust" was finally published in the November 15th issue of *Spine*.<sup>1</sup> The results, while not surprising, are important to review and consider, as they bear a number of lessons.

The study was designed to "determine whether training primary care physicians in techniques of limited manual therapy would result in improved outcomes for their patients with acute low back pain." The authors trained 31 primary-care-MDs in "a sequence of eight standard manual therapy techniques." Two hundred and ninety-five patients were randomized into two treatment groups. One group received what was termed "enhanced care;" the other received "enhanced care with manual therapy." The main outcome measures included the "Roland-Morris functional disability scale measured over time and patient-reported time to functional recovery, time to complete recovery, and satisfaction with care."

The results and conclusions were not unexpected:

**Results.** No differences were found in Roland-Morris scores over time, mean functional days to recovery, days absent from work, or patient satisfaction. More patients receiving manual therapy had completely recovered after the first visit, compared with the control group (8.6%;  $P=0.01$ ). Patients who received more intense manual therapy (four or more maneuvers) had a more rapid return to functional recovery (7.8 days), compared with those who received less intense manual therapy (11.1 days;  $P=0.02$ ).

**Conclusion.** Limited training in manual therapy techniques offers very modest benefits, compared with high-quality (enhanced) care for acute low back pain.

The reasons for the "very modest benefits" of "manual therapy" are apparent in the approach taken by the authors:

"However, the authors' experience and observation of the practice of many busy manual therapists suggest that, whatever the specific mechanical diagnosis, it is common practice to first use a standard sequence of muscle energy and high-velocity, low-amplitude maneuvers applied to more than one musculoskeletal region. Theoretically, improvement using a standard sequence of maneuvers, which adjust and stretch joints and soft tissues, might be caused by general inhibition of C-fibers, release of local nerve compression, or neuroplastic effects on dorsal horn cells, thus reducing central pain perception."

To apply a "standard sequence of maneuvers" to each patient, "whatever the specific mechanical diagnosis," obviously lacks the diagnostic/analytical approach needed to see each patient as unique. In

addition, this mechanized approach apparently lacks any philosophical foundation.

The next challenge facing the authors is the amount of time spent training the MDs. An "intensive training course" was developed by the authors to train the MDs. Consisting of "two full days of educational and skill workshops, one month apart, with a later refresher session (18 hours in total)," the MDs were "encouraged to practice the manipulation techniques in their own practices until the clinical trial began - approximately three months later."

The next challenge was the "standardized maneuvers" themselves. They were given "for each side of the trunk, involving the psoas and piriformis muscles, sacroiliac, and the lumbosacral articulations. For each side there were five muscle energy techniques and three high-velocity, low-amplitude thrusts."

The 295 patients were interviewed at baseline and at two, four and eight weeks after the initial visit. Improvements in the Roland-Morris scores "showed a persistent but slight trend during the eight-week study period in favor of the manual therapy group." But this trend was "not statistically or clinically significant." The percentage of patients who experienced full recovery was "significantly greater for the manual therapy group (22;14%) compared with 8(6%),  $P=0.01$ )." But there were "no differences in levels of pain, days absent from work, and overall patient satisfaction between the two groups."

Unlike a chiropractic practice, "medication use was substantial in both groups, with 104 (35%) receiving narcotic analgesics and the majority of patients (202; 68.5%) receiving muscle relaxants" with "significantly fewer patients in the limited manual therapy group received muscle relaxants."

Perhaps the most interesting aspect of the study is the effect it had on the MDs: "Two years after training, most physicians in the study reported continued use of manual therapy, with approximately half using only muscle energy techniques at a frequency of two to three times weekly. They reported that they had changed their management by performing more complete examinations, more touching, less use of narcotics, reduced referrals to specialists, and increased referrals to chiropractors. The take rate of the training appeared to be approximately 50%. A majority of the physicians believed that they were improving patient outcomes, perhaps because of their impression of immediate improvement, now shown by the data, after the first treatment."

The authors warn that "the physicians were not experts in manual therapy" and that these results "should therefore not be generalized to the effectiveness of manual therapy performed by expert practitioners."

However, they conclude that the "addition of limited manual therapy (to the training of physicians) offers little extra benefit."

## Reference

1. Curtis P, Carey TS, Evans P, Rowane MP, Garrett JM, Jackman A. Training primary care physicians to give limited manual therapy for low back pain. *Spine* 2000;25:2954-2961.

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