

Perspectives on the RAND Report

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In 1991, the RAND Corporation of Santa Monica, California issued two documents concerning manipulation and low-back pain:

1. Shekelle PG, Adams AH, Chassin MR, Hurwitz EL, Phillips RB, Brook RH: The Appropriateness of Spinal Manipulation for Low-Back Pain: Project Overview and Literature Review. Santa Monica, CA: RAND Corporation, 1991, #R-4025/1-CCR/FCER.
2. Shekelle PG, Adams AH, Chassin MR, Hurwitz EL, Park RE, Phillips RB, Brook RH. The Appropriateness of Spinal Manipulation for Low-Back Pain: Indications and Ratings by a Multidisciplinary Expert Panel. Santa Monica, CA: RAND Corporation, 1991, #R-4025/2-CCR/FCER.

As the Preface and Summary for the first document suggested, these reports comprised the first two phases of a larger project. The short-term goals of these initial efforts were intended to "ascertain the clinical criteria for the appropriate use of spinal manipulative therapy (SMT) for low back from chiropractors and medical specialists. ..." To accomplish this seemingly worthy task, RAND's panel of DCs and MDs reviewed "... the literature from 1952 to the present on the use of spinal manipulation. It gathers data from 76 sources including 22 controlled trials of the use of spinal manipulation for low-back pain."

The second of the two reports listed above is a rather tedious listing of the various ratings made by these experts, and is best considered a cure for insomnia. The first document is rather more reader-friendly and provides a number of opinions about SMT, including conclusions concerning complications, efficacy (actually, effectiveness) and treatment duration. The sections concerning effectiveness are broken down into subcategories of low back disorder:

Acute low-back pain:

- *without neurological findings*
- *with minor neurological findings*
- *with major neurological findings*
- *with sciatic nerve root irritation*

Subacute low-back pain

- *without neurological findings*
- *with minor neurological findings*
- *with major neurological findings*

Chronic low-back pain

- *without neurological finding*
- *with minor neurological findings*
- *with major neurological findings*

- with sciatic nerve root irritation
- with prior laminectomy

The nature of the conclusion drawn about the apparent value or lack of value of SMT for each of the above specific clinical problems is not of concern here; the interested reader is urged to read the original reports (well, the first one anyway) for that information. It would be well to recall that the conclusions drawn are based upon the currently available literature; if there were a greater volume of quality information about the value of SMT, the conclusions might well have been different. Moreover, it is possible that reasonable people, knowledgeable about these disorders and about SMT, might draw different conclusions, but with the anchor provided by the available controlled literature, it seems difficult to imagine greatly dissimilar conclusions. It should also be noted that the RAND documents are not reports of original research, but are rather summaries of the literature and of expert opinions.

Of interest to this writer is the extreme and unwarranted reactions to the RAND reports from several quarters. The seemingly conservative comment by the Foundation for Chiropractic Education and Research (FCER), that the RAND study "confirms the appropriateness of chiropractic treatment of some low-back pain patients," is actually a misstatement (since most of the studies reviewed by RAND were not conducted by chiropractors, and few of the controlled trials involved the high velocity, low amplitude, segment-specific thrusts which DCs prize so highly). Moreover, this particular comment was embedded in a patient brochure which proclaimed that "Chiropractic works; research proves it: Chiropractic works!" (FCER, 1991).

Responding to this sort of hyperbole, quackbuster William Jarvis, PhD, president of the National Council Against Health Fraud (NCAHF) and editor of its NCAHF Newsletter, added his own flavor:

DC propagandists are ballyhooing the RAND study as supportive of chiropractic. They do not reveal that 1) the chiropractic profession paid for the study; 2) four of the nine evaluators of the studies were favorably biased DCs; 3) only four of the 22 controlled trials involved chiropractic manipulation (i.e., versus safer techniques used by physical therapists, DOs, etc.); 4) nor do they come clean by accurately presenting RAND's conclusion that "the efficacy of spinal manipulation is neither proven nor disproven at this time." In a KNBC-TV Los Angeles interview, RAND project director Paul Shekelle, MD said only that manipulative therapy was "better than doing nothing" for low-back pain (Jarvis, 1992).

Predictably, Dr. Jarvis can find nothing positive in chiropractic. Although his criticisms are directed to the mindless "it works" rhetoric of PR-minded chiropractors, he seems to suggest that the RAND report is flawed because "four of the nine evaluators of the studies were favorably biased DCs." Should we have equal suspicion about drug trials or reviews in which medical doctors participate? In fact, Jarvis' criticism borders on argument ad hominem, and comes close to dismissing the RAND report on the basis of the experts' credentials. In defense, Jarvis can justifiably emphasize that his criticisms are directed to chiropractors' misuse of the RAND report, and that, indeed, very few controlled trials (only four of 22 in the RAND review) have involved adjustive thrusting for low-back pain. However, the means by which Dr. Jarvis has determined that adjusting is less safe than "techniques used by physical therapists, DOs, etc.," has eluded this writer. I suspect that the NCAHF leader may suffer from the same sort of hyperbole that he criticizes.

Writing in the "Research Review" section of the ICA's International Review of Chiropractic, Charles S. Masarsky, DC, offers criticism from the opposite end of the spectrum. He suggests:

In this reviewer's opinion no serious decisions concerning the chiropractic profession should be made based on the RAND research.

It represents a study essentially "sanitized" of most research indicating the full benefits of chiropractic care for patients with low-back pain (Masarsky, 1993).

Masarsky further suggests that:

-- good descriptive studies indicate that low-back pain patients presenting for chiropractic care often experience favorable results beyond acute pain relief. This can include relief from such conditions as sciatica, dysmenorrhea, bowel and bladder dysfunction, and premenstrual symptoms. Good descriptive studies have also been published indicating excellent clinical results in low-back pain cases of more than nine years' duration. None of these studies appeared in the reference section of this paper (Masarsky, 1993).

Apparently, Masarsky would accept uncontrolled, descriptive data as a basis for drawing conclusions and making claims about the value of health care methods. The human capacity to find what we expect to find (Sassower & Grodin, 1987) is ignored here; supposedly, if patients improve after experiencing interventions that we hope will help them, then it must have been our intervention that made the difference! This is a rather unfortunate perspective, for it perpetuates an impression that chiropractors are either unwilling or unable to adopt the doubting, critical attitudes of science. Moreover, implicit in Masarsky's criticism is the notion that it was inappropriate for the RAND panel to address the issue of the possible utility of SMT for low back disorders without considering the wide variety of possible additional (but peripheral) benefits that might be produced (e.g., dysmenorrhea, bladder dysfunction, etc.). Masarsky (1993) could have used the occasion to call for further, broader research (as he did elsewhere in the same issue of the ICA Review: Masarsky & Weber, 1993), but instead he dismisses the RAND report and encourages nonexperimental standards of evidence.

Perhaps these various perspectives on the RAND report are predictable from a knowledge of the mindsets and political allegiances of the critics. Quackbusters find it too liberal, straight chiropractors find it too conservative, and ACA types discovered fodder for their PR machine. Of course, dirty-stinking medipractor-ally that I am, I thought the RAND panel did a fair job of accomplishing what they set out to do -- critically review the available controlled data in a circumscribed area. Innate bless us, one and all.

References

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Sassower R, Grodin MA: Scientific uncertainty and medical responsibility. Theoretical Medicine, 8:221-34, 1987.

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