

Review of the “Federation of Chiropractic Licensing Boards High-velocity, low amplitude spinal adjusting / manipulation performance: Minimum criteria for safety and adequate competence.”¹

APTA Manipulation Task Force

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The paragraph that is commonly quoted and referred to in chiropractic legislative documents, although quoted out of context, is located in paragraphs 3 and 4 of the document. When dissecting through the misrepresentation within its usual context, the use of the paragraph in relative distortion is clearly demonstrated.

“II. Evidence of risk

a. Utilization data on spinal manipulation

i. It is generally understood that any method of effective intervention to assist patients, can have unintended adverse reactions that may be unpredictable or occur when used incorrectly or under inappropriate conditions. Spinal adjusting / manipulation enjoys a very low risk, especially when performed by adequately trained providers. Chiropractors provide approximately 94% of the manipulation services delivered in the United States(1). The case series and case review literature(13,14,15,16), on the other hand, reflects that between 46% and 80% (average 62%) of complications associated with manipulation have occurred at the hands of chiropractors. The evidence suggests that 6% of the procedures performed by other disciplines may be responsible for a disproportionate 20% to 34% of the complications.”¹

The Federation of Chiropractic Licensing Boards paper argues that the percent of complications is very low for chiropractors in proportion to the percentage of total manipulations chiropractors perform hinges on Shekelle’s estimate that chiropractors perform 94% of all manipulations. Shekelle published a meta-analysis of the literature in 1992 that concluded that manipulation can be beneficial for acute low back pain.² The 94% statement is based on the percent of billing by chiropractors for manipulation in RAND Health Insurance Experiment, which was a 15 year health policy project started in 1971 that studied health care financing and lead to increases in the prevalence of managed care insurance programs.³ The following is a quote from the Shekelle paper:²

“In the United States, chiropractors provide most of the manipulative therapy for which reimbursement is sought. In our analysis of data from the RAND Health Insurance Experiment, chiropractors delivered 94% of the manipulative therapy.” (this statement is not referenced)

It could be argued that the 94% statement comes from unpublished data, and the data is very old having been collected in the 1970’s and early 1980’s.

In review of the articles that are cited that studied complications from manipulation, **Assendelft breaks down the reported complications by profession with (135/220) 61% due to chiropractic and only (12/220) 5% due to PT.**⁴ **Patijn found (85/98) 87% of complications due to chiropractors and only (6/98) 6% due to PT.**⁵ A third similar article referenced in this section of the Federation of Chiropractic paper by Vick does not break down the serious complications reported by profession, so you cannot make direct comparisons.⁶ So, these papers support that the vast majority of serious complications arise from chiropractors and that PTs are extremely safe. Professional and paraprofessional practitioners other than PTs and chiropractors are responsible for 7% to 34% of the complications reported in these studies, which should be a common concern.

In addition, the papers that actually report complications from manipulation by profession do not indicate what percent of total manipulations were performed on the population that was actually studied. Rivett’s study was the

only study cited that was not a review of the literature, and the study was conducted in New Zealand, a country with a much higher percentage of physical therapists performing manipulation in relation to the number of chiropractors.⁷ For instance, in New Zealand currently there are 3961 physiotherapists compared to 419 chiropractors.^{8,9} In the study by Rivett that was published in 1997, physicians in New Zealand reported 42 cases of complications due to spinal manipulation and more than half (54%) of the complications from spinal manipulations were caused by chiropractors (23/42) compared to only one-third (14/42) of all complications reported in this survey were the result of physical therapist treatments.⁷ **Therefore, one-tenth of the number of practitioners produced nearly twice (164%) as many complications.** In 2008 according to Bureau of Labor Statistics (BLS) physical therapists in the US held 185,500 jobs compared to 49,100 by chiropractors.¹⁰ **So in the US, there are nearly 4 times as many practicing PTs as chiropractors and all of these studies report significantly fewer complications from PTs than chiropractors.** This supports what other studies have found that physical therapists are safer than chiropractors in the performance of spinal manipulation.

Summary

The chiropractic argument that chiropractors perform 94% of manipulations with only 64% of complications is fundamentally flawed in that they are basing the percent of manipulations performed by chiropractors on a very small, regionally based sample taken over 25 years ago and they use unpublished data to support their argument. The complications data were taken from different regions of the world and at different points in time. **The statement also tends to imply that a proportionally very high percentage of adverse events are produced by PTs, and there is data to support just the opposite.**¹¹

Recommendations

PTs and chiropractors should consider joining forces to assure safety in application of manipulation since other professional and paraprofessional groups have been cited as causing many of these adverse events. Additionally, PT organizations such as the International Federation of Manipulative Physical Therapists (IFOMPT) are currently working on clinical guidelines to assure vascular screening and safety in treatment of cervical spine disorders.

References

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