

Can Chiropractors and Evidence-Based Manual Therapists Work Together? An Opinion From a Veteran Chiropractor

Samuel Homola, DC

Abstract: Use of manual therapy in the form of manipulation and massage is evident in the earliest recordings of history. Today, manual therapy is an evidence-based practice that can be used with predictable results in the treatment of a variety of neuromusculoskeletal problems. However, for some manual therapists, treatment is still based on a belief system that incorporates vitalism, energy healing, and other metaphysical concepts. Cooperation of practitioners in researching the effects of manual therapy would require uniformity based upon the guidelines of science, following rules for selection of an evidence-based therapy that produces predictable and replicable results. Such an approach would not allow contamination by dogma or by an agenda that is designed more to support a belief system than to find the truth. The chiropractic profession, which began with a founding father in 1895, is identified primarily by its use of manipulation. But chiropractic is based upon a vertebral subluxation theory that is generally categorized as supporting a belief system. The words “manipulation” and “subluxation” in a chiropractic context have meanings that are different from the meanings in evidence-based literature. An orthopedic subluxation, a partial dislocation or displacement of a joint, can sometimes benefit from manipulation or mobilization when there are joint-related symptoms. A chiropractic subluxation, however, is often an undetectable or asymptomatic “spinal lesion” that is alleged to be a cause of disease. Such a subluxation, which has never been proven to exist, is “adjusted” by chiropractors, who manipulate the spine to restore and maintain health. The reasons for use of manipulation/mobilization by an evidence-based manual therapist are not the same as the reason for use of adjustment/manipulation by most chiropractors. Only evidence-based chiropractors, who have renounced subluxation dogma, can be part of a team that would research the effects of manipulation without bias.

Key Words: Chiropractic, Evidence-Based Manual Therapy, Manipulation, Mobilization, Subluxations, Adjustments, Belief Systems

In 1956, I graduated from Lincoln Chiropractic College in Indianapolis. I subsequently spent 43 years in private practice as a chiropractor (Figure 1). Lincoln was a “straight” school, which taught that most ailments were caused by vertebral subluxations, requiring only one treatment: spinal adjustments to remove nerve interference. Physiotherapy (in this context, defined solely as physical

therapeutic modalities) was not taught. I was told that such treatment relieves symptoms without removing the cause of disease. After my first year at Lincoln, I began to have doubts about what I was being taught. A leading 1947 chiropractic textbook¹ proclaimed “...Of all the causes of disease, there is one which is more universally present than any other, and that is subluxation of vertebrae. Probably in all abnormal states there is a demonstrable spinal lesion...” Many chiropractors believed that adjusting the spine would release a vital force that would allow the body to heal itself. I read Fisher’s 1948 book *Treatment by Manipulation*². Fisher, an English orthopedic surgeon who specialized in the use of manipulation, warned of the dangers of vertebral

Address all correspondence and request for reprints to:
Samuel Homola
1307 East Second Court
Panama City, FL 32401
samhomola@comcast.net



Fig. 1: Author demonstrating lumbar spine manipulation

subluxation theory²: “...The dangers of building up a revolutionary system of medicine based upon such a slender hypothesis, unsupported by scientific evidence, is so incalculable that it is our duty as guardians of the public health to fight against this menace...” I was also greatly impressed by the work of Mennell, a specialist in physical medicine, who wrote extensively about use of joint manipulation. In his 1952 book *The Science and Art of Joint Manipulation: The Spinal Column*³, he lamented inappropriate use of a greatly neglected treatment method:

“...One point requires emphasis, namely that the faith of those who rely on manipulative treatment as a sole remedy is unjustifiable. At its best, treatment by manipulation is only one of sixty-odd remedies --many with sub-divisions-- that are employed in Physical Medicine alone, while other remedies outside this field of medical science are countless. Choice of the one remedy that will be of service is the great difficulty that besets medical practitioners, and treatment by manipulation should occupy a more prominent place in the armamentarium than it has hitherto done...”

What I read in books written by orthopedic and physical medicine specialists made more sense to me than what I was being taught in chiropractic college. I rejected the vertebral subluxation theory as a basis for use of spinal manipulation. I felt that spinal manipulation could be of value in the treatment of back pain and related problems but was not adequately available in medical practice. Perhaps, with time and change, the chiropractic profession could fill this need.

Reforming a Profession

With the goal of promoting use of spinal manipulation in the treatment of back pain, while working to reform chiropractic by placing proper limitations on use of spinal manipulation by chiropractors, I began practice in Panama City, FL. When it became apparent that chiropractic was hopelessly mired in subluxation chicanery, I began work on my book *Bonesetting, Chiropractic and Cultism*⁴, which was published in 1963. In the final sentence of its last chapter, I wrote:

“...Unless the chiropractic profession as a whole specializes in the physical treatment of back disorders... and earns reciprocity with other healing professions, under the guidance of medical science, there will be no justification for the existence of chiropractic when an adequate number of medical specialists and medical technicians make scientific manipulation available in a department of medical practice...”

Today, most chiropractic colleges include instruction in use of physical therapy modalities and other adjunctive procedures. A few colleges are still “straight,” teaching that spinal adjustment is the only treatment needed for most ailments, emphasizing “spinal analysis” rather than diagnosis. All of the colleges, however, still cling to the belief that adjusting the vertebrae will improve health by removing nerve interference, despite rejection of this belief by medical scientists^{5,6}.

How Chiropractic Is Defined

In 1895, D.D. Palmer⁷, a magnetic healer, announced, “...ninety-five percent of all diseases are caused by displaced vertebrae, the remainder by luxations of other joints...” This “bone-on-nerve” theory was simple: Adjusting the vertebrae to remove interference with the flow of nerve energy would allow the body to heal most diseases.

In July of 1996, the Association of Chiropractic Colleges (ACC), representing 16 North American chiropractic colleges, issued a position paper defining subluxation and scope of practice in a less simplistic manner⁸. The paper said, in part: “...Chiropractic is concerned with the preservation and restoration of health, and focuses particular attention on the subluxation. A subluxation is a complex of functional and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health...”

In November 2000, the International Chiropractic Association and the American Chiropractic Association endorsed the ACC paradigm and its views on subluxation. In May of 2001, the World Federation of Chiropractic also endorsed this definition. The document was included in Appendix A of the 2005 edition of *Job Analysis of Chiropractic*⁹, published by the National Board of Chiropractic Examiners.

Offering support for this vague, non-falsifiable premise, the Foundation for Chiropractic Education and Research

(FCER) published *The Role of Subluxations in Chiropractic*¹⁰. Moving away from the original “bone-on-nerve” theory, a more sophisticated, all-inclusive definition for a chiropractic subluxation was formulated¹⁰:

“...The concept of the Vertebral Subluxation Complex (VSC), having been developed over the past 20 years, attempts to allow a broader field of chiropractic clinical management to be incorporated into a single conceptual model. It embraces the holistic nature of the human body, including health, well-being, and the doctor/patient relationship as well as the changes in nerve, muscle, connective, and vascular tissues which are understood to accompany the kinesiologic aberrations of spinal articulations...”

Support for the vertebral subluxation theory continues among chiropractors and chiropractic organizations despite the critical views of evidence-based chiropractors. A 1995 landmark literature review by two chiropractors¹¹ concluded that there were no appropriately controlled studies to indicate that dysfunction in structures of the spinal column could cause organic disease. In 1997, an associate professor at a chiropractic college reported¹² that “...Clinical studies on the effectiveness of spinal manipulation are conducted and reported [by chiropractors] without reference to the presence or absence or even the existence of subluxations. In the main, this faction within the profession has concluded that subluxations as Palmer [the founder of chiropractic] imagined them simply do not exist...”

More recently, a group of evidence-based chiropractors and researchers¹³ called for efforts to “...distinguish between subluxation dogma versus subluxation as the potential focus of clinical research...” Such distinction may be difficult. A chiropractic subluxation is not the same as an orthopedic subluxation and cannot be clearly demonstrated. An orthopedic subluxation, defined as a partial dislocation or displacement of a joint, may be painful as well as clearly visible, while the chiropractic “subluxation complex” may be asymptomatic and undetectable.

How Chiropractors Practice

Despite lack of evidence to indicate that a vertebral subluxation complex will “...compromise neural integrity and may influence organ system function and general health...”⁸, a 2003 random survey of 1102 active North American chiropractors revealed that 88.1% of 687 respondents thought that the term “vertebral subluxation complex” should be retained by the chiropractic profession¹⁴. The respondents also believed that vertebral subluxation was a significant contributing factor in 62.1% of visceral ailments¹⁴.

For the most part, chiropractic continues to be defined in state laws and in chiropractic college catalogues as a method of adjusting vertebral subluxations to restore

and maintain health. The current Master Plan of the American Chiropractic Association (ACA)¹⁵ holds that

“...The relationship between structure and function in the human body is a significant health factor and [...] such relationships between the spinal column and the nervous system are highly significant because the normal transmission and expression of nerve energy are essential to the restoration and maintenance of health...”

While there is a paucity of credible evidence supporting the use of spinal manipulation in the treatment of health problems and no evidence to support the theory that vertebral subluxations can cause visceral disease, there is considerable evidence to indicate that spinal manipulation can be helpful in treating some types of back pain. A report issued by RAND in 1991 supported the use of spinal manipulation in the treatment of patients with acute uncomplicated low back pain¹⁶. However, the report added, “...no evidence to date conclusively proves the effectiveness or lack thereof for the use of spinal manipulation to treat back pain...” Manipulation is in fact sometimes clearly contraindicated when the diagnostic process raises a red flag.

In 1994, the Agency for Health Care Policy and Research (AHCPR) of the US Department of Health and Human Services published *Acute Low Back Problems in Adults*, offering clinical guidelines for treatment of low-back problems¹⁷. The report emphasized that manipulation seemed helpful for patients with acute low-back problems without radiculopathy when used within the first month of symptoms. However, there is no definitive evidence that spinal manipulative therapy is more effective than other forms of treatment for patients with acute or chronic low-back pain¹⁸⁻²¹. A series of trials using various methods of treating (sub)acute low-back pain reported similar outcomes for spinal manipulation, massage therapy, standard medical care, or self-help care aided by back school or instructional booklets²². However, manual therapists know from experience that spinal manipulation is often more effective for providing immediate short-term relief for some types of back pain. Clinical judgment must be exercised in selecting treatment methods for symptomatic relief as well as to assure full recovery in the final outcome. As Mennell³ pointed out many years ago, manipulation is only one treatment of many that must be considered in the treatment of back pain.

A Niche for Back-Pain Specialists

Back pain is one of this nation’s most common medical problems, accounting for \$50-100 billion in health costs annually²³. Of all forms of disability, back pain is the most costly²⁴. Yet few chiropractors specialize in the treatment of back pain. Since manipulation is not always indicated in the treatment of back pain, chiropractors, who do treat back pain must have access

to a variety of physical treatment methods. “Straight” chiropractors who do not diagnose and who treat only with spinal adjustments would not often be able to offer appropriate treatment for back pain.

Concerned that the chiropractic profession “...has failed to define itself in a way that is understandable, credible and scientifically coherent,” a group of evidence-based chiropractors offered a model for “spine care” that focuses primarily on treatment for back pain²⁵. The purpose of the plan was to “...help integrate chiropractic care into the mainstream delivery system while still retaining self-identity for the profession...”²⁵. The plan was not well received by the chiropractic profession, which is loath to restrict chiropractic treatment to back pain, preferring instead to treat a broad scope of health problems.

On June 15, 2005, the World Federation of Chiropractic, at its 8th Biennial Congress²⁶, unanimously agreed that chiropractors should be identified as “...spinal health care experts in the health care system...with emphasis on the relationship between the spine and the nervous system...” This definition fails to place proper limitations on chiropractors who use spinal adjustments to treat general health problems, plunging the profession deeper into pseudo-science and away from establishing an identity for chiropractors as back-pain specialists. Facing an identity crisis, a consensus conference was held in February 2006 at National University of Health Sciences, a leading US chiropractic college. Focusing on issues of credibility and appropriate utilization of chiropractic care by the public, the President of National University offered this observation²⁷: “...The chiropractic profession has much to offer the public in the way of health care. It is my hope that this planning process can begin to turn the tide toward greater cultural authority for the chiropractic profession and better care for our patients...”

Definition by consensus, with such vague goals and catch phrases as “cultural authority,” may do little to define and limit chiropractic in a scientifically acceptable way. Failure of the chiropractic profession to conduct the research required to fill the societal need for a specialty treating mechanical-type neck and back pain and related problems may keep chiropractors on the fringes of health care without identity or a secure future.

An Uncertain Future

A 2005 report by the Institute for Alternative Futures noted that the future of chiropractic is uncertain because of economic challenges and limitations in chiropractic science and methods²⁸. A 1998 editorial²⁹ in the *New England Journal of Medicine* noted that “...there appears to be little evidence to support the value of spinal manipulation for non-musculoskeletal conditions...” In 2003, a study³⁰ published in the *Milbank Quarterly* observed, “...The [chiropractic] profession’s efforts to broaden

its activities in alternative medicine have inherent limitations...” Despite lack of support as an alternative method of treating general health problems, there are no indications that the chiropractic profession will limit its scope of practice to neuromusculoskeletal problems and abandon the all-inclusive concept that “...normal transmission and expression of nerve energy are essential to the restoration and maintenance of health...”¹⁵. It appears that the profession will instead choose the route of alternative medicine, which offers a broad scope of practice, continued independence, and a way to avoid becoming a subspecialty of medicine^{28,31}. Three leading chiropractic colleges are now called a “University of Health Sciences,”³² incorporating complementary and alternative healing methods. For example, the National University of Health Sciences, considered by many to be the No. 1 US chiropractic college, offers programs in acupuncture/meridian therapy, Oriental medicine, naturopathic medicine, and therapeutic massage, defining chiropractic medicine as “...the treatment of human ailments without the use of prescription drugs and operative surgery...”³³.

As I warned in *Bonesetting, Chiropractic and Cultism*⁴, if chiropractic fails to specialize in an appropriate manner, there may be no justification for the existence of chiropractic when there are an adequate number of physical therapists providing manipulative therapy. Many physical therapists are now using manipulation/mobilization techniques. Of the 209 physical therapy programs in the US, 111 now offer Doctor of Physical Therapy (DPT) degrees²⁸. Some of these programs have been opened to qualified chiropractors. According to the American Physical Therapy Association³⁴,

“...Physical therapy, by 2020, will be provided by physical therapists who are doctors of physical therapy and who may be board-certified specialists. Consumers will have direct access to physical therapists in all environments for patient/client management, prevention, and wellness services. Physical therapists will be practitioners of choice in patients’/clients’ health networks and will hold all privileges of autonomous practice...”

It matters little who does spinal manipulative therapy as long as it is appropriate and evidence-based. There can be cooperation between chiropractors and other practitioners of manual therapy if everyone works under the common denominator of science and if treatment methods are standardized. Subluxation-based chiropractors whose goal is to improve health by removing nerve interference may use any one of a variety of esoteric techniques, making cooperation difficult or impossible. Until the chiropractic profession as a whole is properly defined and specialized and its practitioners uniformly limited in use of acceptable treatment methods, across-the-board cooperation between evidence-based manual therapists and chiropractors is not feasible. For those researchers striving to develop an inter-professional

research agenda on the therapeutic use of manipulation, it would be necessary to seek out evidence-based

chiropractors, who can participate in joint-manipulation research that is free of bias and dogma. ■

REFERENCES

1. Janse J, Houser RH, Wells BF. *Chiropractic Principles and Technic*. 2nd ed. Chicago, IL: National College of Chiropractic, 1947.
2. Fisher TAG. *Treatment by Manipulation*. 5th ed. London, England: HK Lewis & Company, 1948.
3. Mennell J. *The Science and Art of Joint Manipulation: The Spinal Column*. New York, NY: Blakiston Company, 1952.
4. Homola S. *Bonesetting, Chiropractic and Cultism*. Panama City, FL: Critique Books, 1963.
5. College of Physicians and Surgeons of the Province of Quebec. A scientific brief against chiropractic. *New Physician*. September 1996. Available at: www.chirobase.org/05RB/CPSQ/06.html. Accessed March 17, 2006.
6. Crelin ES. A scientific test of the chiropractic theory. *Am Sci* 1973;61:574-580.
7. Palmer DD. *The Chiropractor*. Whitefish, MT: Kessinger Publishing Company, 1914.
8. Association of Chiropractic Colleges. A position paper on chiropractic. *J Manipulative Physiol Ther* 1996;19:633-637.
9. Christensen M, Kollasch M, Ward R, Webb K, Day A, Zun Brunner K. *Job Analysis of Chiropractic*. Greeley, CO: National Board of Chiropractic Examiners, 2005.
10. Rosner A. *The Role of Subluxations in Chiropractic*. Des Moines, IA: Foundation for Chiropractic Education and Research, 1997.
11. Nansel D, Szlazak M. Somatic dysfunction and the phenomenon of visceral disease simulation: A probable explanation for the apparent effectiveness of somatic therapy in patients presumed to be suffering from true visceral disease. *J Manipulative Physiol Ther* 1995;18:379-397.
12. Nelson C. The subluxation question. *J Chirop Humanities* 1997;7:46-55.
13. Keating JC, Charlton KH, Jaroslaw PG, Perle SM, Sikorski D, Winterstein JF. Subluxation: Dogma or science? *Chiropractic and Osteopathy* 2005;13:17. Available at: <http://www.chiroandosteo.com/content/13/1/17>. Accessed March 1, 2006.
14. McDonald W, Durkin K, Iseman S, Pfefer M, Randall B, Smoke L, Wilson K. *How Chiropractors Think and Practice*. Ada, OH: Institute for Social Research, Ohio Northern University, 2003.
15. American Chiropractic Association House of Delegates. The ACA Master Plan, Ratified September 2000. Available at: http://www.amerchiro.org/about/policies_shtml. Accessed March 1, 2006.
16. 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, 1991.
17. Bigos SJ, Bowyer OR, Braen GR, et al. *Acute Low Back Problems In Adults: Clinical Practice Guidelines Number 4*. Rockville MD: Agency for Health Care Policy and Research; 1994: AHCPR publication 95-0642.
18. Ernst E, Assendelft WJ. Chiropractic for low back pain: We don't know if it does more good than harm. *BMJ* 1998;317:160.
19. Ernst E. Spinal manipulation: Its safety is uncertain. *Can Med Assoc J* 2002;166:40.
20. Assendelft WJJ, Morton SC, YuEmily I, Suttorp MJ, Shekelle PG. Spinal manipulative therapy for low-back pain. *The Cochrane Database of Systematic Reviews* 2004; Issue 1. Art. No.: CD000447. Pub 2. DOI: 10.1002/14651858. CD000447.pub 2.
21. Assendelft WJ, Bouter LM, Knipschild PG. Complications of spinal manipulation: A comprehensive review of the literature. *J Fam Pract* 1996;42:475-480.
22. Cherkin DC, Deyo RA, Battie M, Street J, Barlow W. A comparison of physical therapy, chiropractic manipulation, and provision of an educational booklet for the treatment of patients with low back pain. *N Engl J Med* 1998;339:1021-1029.
23. Pelletier KR, Astin JA. Integration and reimbursement of complementary and alternative medicine by managed care and insurance providers: 2000 update and cohort analysis. *Altern Ther Health Med* 2002;8:38-38.
24. Goetzel RA, Hawkins K, Ozminkowski RJ, Wang S. The health and productivity cost burden of the top 10 physical and mental conditions affecting six large US employers. *J Occup Environ Med* 2003;45:5-14.
25. Nelson C, Lawrence D, Triano J, Bronfort G, Perle S, Metz D, Hegetschweiler K, LaBrot T. Chiropractic as spine care: A model for the profession. *Chiropractic and Osteopathy* 2005. Available at: <http://www.chiroandosteo.com/content/13/1/9>. Accessed March 1, 2006.
26. World Federation of Chiropractic 2005. *WFC Consultation on the Identity of the Chiropractic Profession*. June 15, 2005. Available at: <http://www.wfc.org>. Identity Consultation. Accessed March 1, 2006.
27. *Houston Chronicle*. Chiropractic conference brings the nation's top chiropractic physicians together to determine priority areas for the next 25 years. Available at: <http://www.chron.com/disp/story.mpl/conws/3688886.html>. Accessed March 1, 2006.
28. Institute for Alternative Futures. *The Future of Chiropractic Revisited 2005-2015*. Available at: <http://www.altfutures.com>. Accessed March 1, 2006.
29. Shekelle PG. What role for chiropractic in health care? *N Engl J Med* 1998;39:1074-1075.
30. Cooper RA, McKee HJ. Chiropractic in the United States: Trends and issues. *Milbank Q* 2003;81:107-138.
31. Homola S. Chiropractic: Conventional or alternative healing? *Skeptical* 2000;8:70-75.
32. Council on Chiropractic Education. Standards. Available at: <http://www.cce-usa.org>. Accessed March 13, 2006.
33. National University of Health Sciences. Chicago, IL. Available at: <http://www.nuhs.edu/show.asp?durki=21>. Accessed March 13, 2006.
34. American Physical Therapy Association. *APTA Vision Sentence and Vision Statement for Physical Therapy 2020*. Available at: <http://www.apta.org/about/aptamissiongoals/visionstatement>. Accessed March 1, 2006.