



C.O. Watkins, D.C., *a Philosopher of the Science of Chiropractic*

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Abstract

Fifty years ago a Palmer graduate (Class of 1925) from Montana rose to apparent positions of influence in the National College of Chiropractic. Dr. Claude O. Watkins was the author of more than three dozen published papers, many of which focused on the role of scientific research in chiropractic. An advocate for stronger educational standards, for freedom of speech and of inquiry, of clinical experimentation, and for a quantitative data-base to guide the clinical art of chiropractic, his message was ignored, misunderstood, or unknown to most chiropractors. This paper provides a brief personal biography and an analysis of Watkins' philosophy and predictions. The relevance of Watkins' views to contemporary efforts to develop chiropractic clinical science is suggested.

C.O. Watkins, D.C., a Philosopher of the Science of Chiropractic

4 Dr. C.O. Watkins is an enigma. Although he held high positions in the National
Chiropractic Association (NCA) and later the American Chiropractic Association (ACA), he
has been forgotten by all but a few in the profession today. A very private person, he was at
the same time a friend of statesmen, an active participant in his local community and in his
state and national professional associations, an author, editor and publisher. Most
importantly, he was a visionary teacher and philosopher of the science of chiropractic with
few rivals for excellence since the Founder.

5a-e Claude O. Watkins was born of immigrant farmers in Eagle Grove, Iowa. His father,
Lewis A. Watkins (1848-1911) arrived in America from Wales in 1869. Dr. Watkins' exact
6 date of birth is uncertain (either 1901 or September 9, 1902).¹ The family moved to North
Dakota shortly thereafter, and Claude was raised mainly by his older sister Lillie, owing to his
7 mother's poor health. After graduation from high school he worked at several factories in
Wisconsin before moving to Davenport to study at the Palmer School of Chiropractic (PSC).
He paid his way through the three-year curriculum by working as a busboy at a Davenport
hotel. His diploma from the PSC is dated May 13, 1925.

8 Dr. Watkins was issued Montana Chiropractic license #126 at Lewistown on August 14,
1926. He began his 51 year practice in Sidney, Montana shortly thereafter. He soon met
Helen Gertrude Hunt, a University of Minnesota graduate and school teacher in Sidney. The
couple married in 1927, and their first son, Robert, now an editor for the University of
Washington/Seattle, was born in 1929. A second son, John, who later earned an Ed.D. from
Northern Arizona State University and now teaches at Ferris State College in Michigan, was
born in 1937.

Montana in the 1920s and 1930s was still a frontier; the Homestead Act had opened the
state to settlement only 25 years before. Sidney may have been unusual during this period for
having Dr. Watkins, several MDs and two dentists to serve its health care needs.
Relationships between Watkins and the local allopaths are described by Mrs. Watkins² as
distant, but not openly hostile. It was only in later years, however, that Dr. Watkins could
make and receive referrals to and from Sidney MDs. During the early years, therefore, the
medical needs of his patients were met by referral to his father-in-law, John H. Hunt, M.D.,
who reportedly³ had completed a "Physician's Course" in chiropractic at PSC circa 1915, and
who practiced in nearby Glendive. Although Drs. Watkins and Hunt had considered
establishing a joint practice, the later feared reprisals from the AMA on "ethical" grounds,
and the combined practice was never attempted. With the exception of a short period during
the late 1930s when he was jointed by Melvin Klette, D.C., Dr. Watkins was a solo
practitioner throughout his career.⁴

9a-d Watkins' health-science interests were broad, and by any standards he was a "mixer" chiropractor. Apart from the equipment at a local hospital, he owned the only EKG device in Sidney for years. Mrs. Watkins and son Robert recall that he treated tonsillitis with an electrical fulguration device, and dispensed oral penicillin for infectious diseases in the 1940s. He constructed a "fever box," employed foot vibrators, used a "basal metabolism tester," and maintained a clinical laboratory for pathological studies. The cover of the March, 1940 issue of the *National Chiropractic Journal* (Vol. 9, No. 3) shows Dr. Watkins at his microscope. The sign on the modest office he built in Sidney proudly indicated "Chiropractic Physician."⁶ He was also an early supporter of the National Chiropractic Association.⁷

10 Watkins was very involved in his community. His memberships included Kiwanis, the Masons, the Shriners, Elks, Moose, a garden club which he started, and a local Toastmaster's Club which he also initiated. He was chairman of several of his county's bond drives during World War II, and later served as an unpaid administrator for a federal housing project in Sidney. He was very active in local democratic party politics, and an outspoken critic of Senator Joseph McCarthy and the John Birch movement during the 1950s and 1960s.^{10,11}

11 Dr. Watkins was a keen observer of national and international politics. Senator Mike Mansfield (later U.S. Ambassador to Japan) was a friend and guest at the Watkins' home,¹² and a letter acknowledgement from Franklin Roosevelt's secretary in 1935 is included among Watkins' papers. Ambassador Mansfield recalls the doctor as "a man to whom I turned to often for advice" and "a good personal friend."¹³ Watkins' 1953 self-published essay "The Watkins Plan to Stop Communism," which he formally registered with the Library of Congress, may have led to his invited presentation at the National Educational Association convention in Denver in 1962 on the nature of the John Birch movement. According to Mrs. Watkins and son Robert,¹⁴ the doctor considered the far right and far left to be very similar, in that both adhered to dogmatic principles. In his perspectives on local, national and global politics, Watkins' message seems to have paralleled his recommendations for chiropractic: free societies and free sciences require freedom of speech and of inquiry.

Watkins continued his education throughout his career. One of his earliest papers¹⁵ reflects his regular review of the *Journal of the American Medical Association (JAMA)*, and the family recalls stacks of *JAMA* issues in his office. Watkins' unpublished 1967 essay, "More about clinical research," was distributed to select ACA committees and accredited colleges with an article from the *JAMA* to illustrate the feasibility of practice-based research.¹⁶ In 1932 he voiced his praise for and regular review of the *Chirogram*, published by the Los Angeles College of Chiropractic.¹⁷ His interest in Pavlov and in Russian medicine are evidenced in several of his writings. Mrs. Watkins recalls that he was frequently away from Sidney for post-graduate seminars.¹⁸ His diplomas include a "Master of Chiropractic" certificate from the Nashville College of Chiropractic (1937), and certificates as a "Physiotherapist" from NCA's National Council on Physiotherapy (in 1949 and 1954). The breadth and depth of his self-education are reflected in his essays (see Table 1).

Table 1 about here

Watkins' personal commitment to education paralleled his career-long crusade to improve chiropractic academic and scientific activities. Higher standards of training within the colleges and lifelong learning were considered essential to the role of the chiropractic "physician-scientist,"^{19,20} and were a recurring theme in his essays. Although he encouraged²¹ the improvements in basic science instruction which evolved during the five decades of his career, he was dissatisfied with the efforts of the colleges and professional associations (NCA, ICA, ACA) to prepare DCs for careers in clinical research.^{22,23}

The sources of Watkins' scientific attitudes are uncertain. His 1923-1925 training at PSC coincided with the neurocalometer debacle,²⁴ and helped to shape his lifelong aversion to B.J. Palmer's philosophy. Watkins would presumably have come in contact with the founders of the Lincoln Chiropractic College, who resigned in protest from the PSC faculty over B.J. Palmer's dogmatic restrictions on academic freedom.²⁵ Dr. Watkins' close association with his University of Michigan-trained allopathic father-in-law could have been an early and continuing influence; Dr. Hunt died in 1946. Watkins' concern for clinical research in chiropractic is in evidence as early as 1940 in his essay, "The science, art and philosophy of things natural - Chiropractic."²⁶

Little information is available concerning Dr. Watkins' professional activities during the first decade of his practice. The June, 1934 issue of the NCA's *Chiropractic Journal* lists him as secretary of the the Montana Chiropractic Association, while his article in the
 19 September, 1934 issue lists him as editor of the *Montana Chirolite*, a publication which was subsequently supported by the state associations of Montana, Idaho and Wyoming. A 1935 article reviewed his lobbying efforts at the state capital.²⁷ In the final issue of the *Chirolite*
 20 (November, 1941) editor-publisher Watkins indicated that the journal was then in its twelfth year, which suggests that he may have begun his writing career as early as 1929. The *Chirolite's* successor, the *American Chiropractic Journal*, was published for a brief period by Watkins, but was not financially viable.²⁸ The *Chirolite* was re-established in 1943, but without Watkins' editorship.

21a-g Watkins was the first chairman of the NCA Committee on Education, and helped to set the direction²⁹ for John J. Nugent's³⁰ subsequent efforts as the NCA Director of Education. In 1938 Watkins became a member of the NCA's Board of Directors, and in 1942-1943
 22 served as chairman of this body. His classic *Basic Principles of Chiropractic Government*, which he self-published in 1944, seems to have been inspired by the doctor's frustration at his inability to convince the NCA to develop a vigorous program of clinical research. Walter B. Wolf, D.C., a South Dakota delegate to the NCA, and later, chairman of the Accreditation Committee of the Council on Chiropractic Education, recalls that:

23a&b

...he made several appearances before the Council on Education to advocate his concern for research. This was back during the days when Dr. John Nugent was director of education for the NCA...

However, his (Watkins') schedule of events were not popular when compared to so many other details that had to be accomplished.³¹

24a&b

Watkins subsequently served for several years as president of the Montana Chiropractic Association, and the family recalls that he promoted continuing education at state association meetings.³² In 1951 he served as chairman of the NCA's Committee on Research, and during 1965-1968 he held the chair of the ACA's Committee on Clinical Research, and continued his quixotic efforts.

 Table 2 about here

25

Montana chiropractor Dr. C.R. Grow summarized his state convention-based impressions of Watkins' contributions to the profession:

26 C.O. Watkins was one of the pioneer Chiropractors in Montana and served his profession very actively throughout his long career. He was the elected representative to the National Chiropractic Association for a number of years during the 1940s and 1950s until his advancing age made him relinquish the job to a younger person. Although C.O. was a quiet, unassuming type of person, his counsel was often sought in matters that concerned the profession and his opinion was usually rendered in a firm and uncompromising tone that spoke of a lifetime of fighting for the things he believed in. I was told by one of the "old-timers" that Dr. Watkins spent more time in our State Capital in Helena than the people who were elected to the legislature.

Joseph Janse, D.C., president of the National College of Chiropractic, recalled Dr. Watkins in a letter to Mrs. Watkins following Dr. Watkins' death:

27a&b (Janse) Yes, I knew your husband well. He defined so much good in behalf of the profession. He was a man of honesty and propriety and he lived with staunch strong convictions. We of the profession shall always be indebted to him for helping tailor the progress and security of the profession.³⁴

27c Watkins' philosophy of chiropractic was unambiguous. He rejected all authority for theory and practice methods except that which derived from scientific data, and believed that the responsibility for collecting these data rested, individually and collectively, with chiropractors. In the absence of research data, he argued, the DC was left with two undesirable alternatives: dogmatic adherence to fixed principles of practice, or no authority at all. Watkins considered that the lack of unity in chiropractic reflected this lack of scientific authority, and was pessimistic about efforts to unite the profession by ignoring theoretical differences among DCs (e.g., the 1963 merger of the NCA and a splinter group from the ICA).
28 The purpose of chiropractic organization, he reasoned, should be to foster clinical studies of the diversity of chiropractic methods and theories. "Natural unity," he predicted, would evolve if chiropractors would come together to study their differences.³⁵

Watkins envisioned the chiropractor as a physician-scientist, that is, as a doctor who is skilled in providing and evaluating health-care. Formal courses of orientation to the attitudes and methods of science should be provided to the student doctor, he reasoned, to enable the DC to interpret, implement, experimentally test, publish, and criticize the theories and results of chiropractic methods. "Too often," he suggested, "chiropractors do not realize that chiropractic research must be done by clinicians like themselves in their own offices because the first prerequisite for clinical research is being able to observe patients under treatment, and this must be done under normal practice conditions."³⁶ One associate recalls that:

29 He firmly believed that Clinical Research would give chiropractic a scientific basis for acceptance. But his idea of having Doctors do research work in their offices was limited in that only a very few are really dedicated to the detailed work involved with research. This, he could not understand. He firmly believed that every Doctor of Chiropractic could keep the required records.

Watkins acknowledged that many DCs would not be active participants in chiropractic studies, but hoped for greater participation than the 10% of allopaths³⁸ who engage in clinical investigations: "All should be trained in clinical research," he reasoned, "as no one can tell who might discover a promising hypothesis for testing."³⁹ Watkins faulted the chiropractic leadership for underestimating "the responsibility and capacity of the chiropractic physician" to engage in substantive clinical research.⁴⁰

30 "CO" believed that improvement in the chiropractic clinical arts is the principal reason for clinical research. However, he recognized also that a variety of secondary benefits could result from a vigorous program of clinical investigations by chiropractors. Among these, he predicted, would be greater intra-professional unity, greater respect and collaboration with the health-science community, and a sounder basis for public relations and legal matters.⁴¹ Increased clinical research, he reasoned, would also attract the attention and collaboration of educators and basic scientists, and would thereby further improve the quality and quantity of scholarly activities in chiropractic.

31a Watkins' fifty year journey through chiropractic may have been even lonelier than that of John J. Nugent. Both men struggled against cultism and to raise educational standards in the profession: Nugent against opposition to basic science training, and Watkins against indifference to clinical research training. Although Nugent was often publicly vilified and disputed, Watkins' views seem rather to have been ignored. And while Nugent would live to see his dream fulfilled⁴² in the 1974 recognition of the Council on Chiropractic Education (CCE) by the U.S. Office of Education, no such satisfaction came to Claude Watkins. He died in 1977 following a stroke, some six months before the first issue of the *Journal of Manipulative & Physiological Therapeutics (JMPT)*, later the first chiropractic science journal to be indexed by the National Library of Medicine. Indeed, not until 1986, some nine years after Watkins' death, would the first well-controlled adjustive experiment by chiropractors be reported.⁴³ In a 1967 letter to Harlin Larson, D.C., Watkins described his career long frustration:

31b (JMPT)

I am in a period of indecision as (to) just what I should do about the struggle I have been carrying on for so many years to put chiropractic on a scientific foundation. I gave it up back in 1945 and took it up again about 1960 and now I am about to give it up again as a hopeless cause. I have already invested a great deal of my time and money and as one grows older the time is perhaps more important than the money. The past year I have been working with the ACA colleges and officials to point out to them the need of getting rid of cultist principles and (basing) chiropractic on scientific principles and outlining a program by which it could be done. It would be necessary for the colleges to head up such a program, and it would spread from the colleges to the field. Most of the colleges, if not all, favor the plan but do nothing about it. Of course we could start a program of reorientation from cultism to science in the field using my committee on clinical research for the purpose. The big question then would be whether the colleges could make cultists faster than we could orient them to science. This with other things cause me to wonder if it is all worth the effort.⁴⁴

A sense of desperation is also apparent among his last written efforts to persuade the ACA and its colleges:

32 No modern profession has had a more turbulent history than chiropractic. Not only has there been a continuous conflict within the profession, but there has been a continuous struggle for public acceptance. Even after seventy years of trying to establish itself, chiropractic faces the question of whether it can survive. Since its sole purpose is the care of the sick, it would seem that full public support would be forthcoming, but it isn't. Why? Why is chiropractic unlike other healing professions in that respect? Why must it struggle to achieve public recognition? What is it doing wrong? Why, when the chips are down, do even its friends desert it? Why has it made no scientific progress as other sciences have? In short, why is chiropractic the queer and rejected child in the field of science, as well as in many other segments of society? These questions demand answers.⁴⁵

33a-c Watkins final campaign to implement a physician-scientist model of chiropractic was recalled by Arthur M. Schierholz, D.C., former member of the NCA Board of Directors and former executive director of the ACA and the Chiropractic Research Foundation (today's FCER):

In 1965 or 1966 he came to the ACA headquarters determined to sell the Staff on instituting a Clinical Research program in the membership or in the Colleges. None of the Chiropractic colleges were accredited at that time so every available dollar that could be acquired was paid out in educational grants-in-aid. At that time the colleges involved in the accreditation movement were struggling and striving in every manner possible to upgrade the curriculum quantitatively.

Dr. Watkins was ahead of the profession.⁴⁶

34 Watkins continuing influence on the science of chiropractic has been minimal, but not
untraceable. Ted L. Shrader, D.C., a long-time student of Watkins' philosophy, has been
instrumental in the ACA Technique Council's growing awareness⁴⁷ of the critical role of
clinical research in chiropractic. Dr. Shrader also republished Watkins' *Basic Principles of*
35 *Chiropractic Government*. Watkins' teachings and recommendations, although ignored by
the ACA, did not go unnoticed at his alma mater. Roy W. Hildebrandt, D.C., then chairman
of Palmer College's Department of Roentgenology and later the founding editor of the *JMPT*
and the *American Journal of Chiropractic Medicine*, wrote to Watkins in 1968 to express
his admiration:

During the past few months I have had an opportunity to read some of your material on
Chiropractic science and practice. Having been sincerely moved by your work, I must take this
opportunity to convey my humble respects. I don't believe I have to tell you the extent of my
agreement -- I couldn't agree more. During the past 20 years that I have been with Chiropractic, I
have been unimpressed with the profession's desires to acquire millions of free dollars for pure
research into the nature of the mental impulse. I am especially unimpressed because I see the
profession sitting idly by waiting for miracles, or worse yet, content in its dogma, ignoring that which
would cost so little and do so much for Chiropractic -- Clinical Research.

I think this work of yours will be an important factor in the change of attitudes which is so
important -- keep it up.⁴⁸

36 Watkins' views on the role of clinical science in chiropractic may, in fact, just now be
moving to the top of the profession's agenda. The "physician-scientist" model proposed by
Watkins has received some exposure in the chiropractic literature during the past decade, and
at least one textbook on clinical research methods in practice has become available. Most
schools offer some semblance of coursework in research methods nowadays, and more
critical attitudes are regularly voiced in our scholarly journals. Organizations such as the
National Institute of Chiropractic Research, the Consortium for Chiropractic Research and
the Foundation for Chiropractic Education & Research provide forums for the systematic
review of research proposals and funding for such projects. Even the ACA now sponsors a
scientific periodical, the *Journal of the NeuroMusculoskeletal System (JNMS)*, although
my standing offer of a free dinner for anyone who can show me an issue of the *Journal of*
the American Chiropractic Association that does not include at least one unsubstantiated
claim for the value of chiropractic care. Some development is apparent in all three of the
areas Watkins considered fundamental to chiropractic scientific growth, that is, "Education,
orientation, and scientific organization,"⁴⁹ and a small amount of research activity can now be
discerned, even by chiropractic's harshest critics.⁵⁰

Whether chiropractic scientific development will be able to keep pace with the growing political and economic pressures for rigorous clinical data is still an open question, however. Lack of clinical outcome data for anything other than spinal manipulation for low back pain continues to encourage challenges to chiropractors' claims with third-party payors. The American Public Health Association's grudging acknowledgement of the clinical value of of manipulative care for low back pain explicitly noted that DCs have contributed little to the clinical trial data in manipulation science.⁵² My heartiest congratulations to the National College and its research team, Drs. Triano, McGregor, Hondras and Brennan, for the RCT they recently published in *Spine*. Nevertheless, non-chiropractic manipulative studies continue to grow rather steadily in fields such as physical therapy and manual medicine. As Watkins⁵³ predicted, chiropractic's research gap has begun to erode chiropractors' claim to be the experts in the science and art of spinal manipulative care.

37 Dr. Watkins' recommendations for scientific development in chiropractic may no longer be sufficient to meet the scientific needs of the profession, but neither can they any longer be ignored. Watkins' philosophy of the science of chiropractic, long overdue for consideration and implementation, may provide an important means of meeting the profession's scientific responsibilities. This remarkable chiropractor's legacy should not be forgotten.

38

SPECIFIC PROPOSALS

Recommendations to National Chiropractic Association and Other Chiropractic Organizations

1

It is proposed that chiropractic organization conform to the principles, methods, and attitudes of science in any program sponsored under the name of chiropractic.

2

It is proposed that national chiropractic organizations and other chiropractic organizations able to do so develop scientific organizations for the purpose of organizing clinical research throughout the profession. That a clinical research director capable of organizing clinical research throughout the profession be employed. That a program for developing field leadership in clinical research throughout the profession be developed.

3

It is further proposed that it be declared the ethical responsibility of every member of the chiropractic profession to share his knowledge with his colleagues freely and without hope of financial remuneration.

4

It is further proposed that a course upon the principles, methods, and attitudes of science be made a part of the basic education of the students in all chiropractic educational institutions.

5

It is further proposed that legal talent be obtained which can adequately defend the right of chiropractic as a science to progress unhampered by legal restrictions insofar as it is possible.

6

It is further proposed that all chiropractic organizations recognize scientific organization as the basic purpose of organization in a clinical science and that they devote the greatest effort possible to bring about a responsible organized science of chiropractic.

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