

Elevating the Scientific Potential of Chiropractic: A Complete Paradigm Shift

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The philosophy, art and science of chiropractic have become static. As new information is discovered and tested, change is predictable and necessary for any healing discipline to maintain credibility. This article explores the necessity for a complete paradigm shift if chiropractic is to remain competitive and viable in the years ahead.

Webster's Dictionary defines paradigm as: "A generally accepted concept that explains a complex idea."¹ If one can embrace and understand that a paradigm shift precedes all major positive changes and advancements in science and knowledge, we also can comprehend a paradigm might be true or false.

A Historical Look at a Paradigm Shift

Around 140 A.D., the Greek astronomer Ptolemy formulated the paradigm of the Earth being the center of the universe, with the moon, sun, planets and stars revolving around it in perfect circles. His paradigm was based on Plato's belief that circular motion was the perfect motion. The Catholic Church accepted and defended the Plato-Ptolemy paradigm of the heavens, proclaiming it was divinely revealed and therefore infallible.

There were, however, scholars who observed that the planets do not move in perfect circles around the Earth. As measurements became more accurate, additional anomalies were discovered. However, fear of reprisal and death allowed the perfect-circular, Earth-centered universe paradigm to remain unchanged for more than 1,300 years. Those who questioned the Church's "divine revelation" were considered heretics and burned at the stake.

In the 16th century, Nicholas Copernicus stated the sun, rather than the Earth, lay at the center of our solar system. Fear of the Church kept his work from being published. The German astronomer Johannes Kepler later took the Danish astronomer Tycho Brahe's data a step further to prove and explain the sun-centered universe and the motions of the planets. Then, in the early 1600s, Galileo, using the newly invented telescope, published evidence supporting Kepler's model. Galileo was denounced and found guilty of blasphemy in a Church inquisition and forced under penalty of death to "abjure, curse and detest" his proven, yet "absurd" notion that the Earth moved around the sun.

Truth is persistent, even in the face of fear and unpopularity. In 1687, Isaac Newton explained the laws of gravity and its effects, which validated our sun-centered universe. He proved the theories of Copernicus, Brahe, Kepler and Galileo to be accurate. The paradigm shift was complete. However, another 305 years elapsed before the Catholic Church accepted the scientific facts and apologized for their misguided treatment of Galileo and the other scientists.

The Present Chiropractic Paradigm

Since the inception of chiropractic in 1895, the chiropractic colleges have taught students the paradigm for spinal displacement, called a *subluxation*, which states: a single vertebra gets out of

place relative to the vertebra above, below or both. The displacement must occlude intervertebral foramina. The occlusion must interfere with neural transmission.

Conceivably, in this subluxation description, if a vertebra is out of place and does not occlude an intervertebral foramina and/or interferes with neural transmission at that segment level, it would not have all of the attributes of a subluxation. However, studies have proven the spine is a "closed kinetic system." Therefore, displacement and impeded function at one spinal level might not cause neural impedance at that level, yet may cause a reciprocal stress in other parts of the spine with impeded neural transmission distant from the original displaced vertebrae.

Chiropractic colleges teach that detection "diagnosis" and treatment are the following:

- If a segment or part of the spine appears to be right of the segment above or below, a dynamic right-to-left thrust should be applied into that segment or part.
- If a segment or part of the spine appears to be left of the segment above or below, a dynamic left-to-right thrust should be applied into that segment or part.
- If a segment or part of the spine appeared to be posterior of the segment above or below, a dynamic posterior-to-anterior thrust should be applied into that segment or part.
- The application of a thrust is called "an adjustment."

In *Webster's Dictionary*, the word *adjustment* is defined as "to correct or make right, to change so as to fit."² At its inception, chiropractic was described as "a separate and distinct science, philosophy and art." This remains the definition of chiropractic. Chiropractic was an objective method of correcting spinal displacements that interfered directly and/or indirectly with nerve transmissions and were shown to cause dysfunction, disharmony and disease in the organs and parts of the body innervated by them.

Presently, the college X-ray departments teach that subluxations cannot be seen on X-ray. Therefore, one could conclude that if something cannot be seen, it also cannot be accurately measured. To accurately measure the direction and amount of spinal displacement (vector quantities), the measurement has to originate from an established origin. Since no origins are established from which to measure, the colleges are forced to teach spinal displacements as a direction of displacement only, such as PRI and/or PRS, which are nonscientific scalar quantities.

Without scientific measuring procedures, the schools revert to embracing and teaching the medical profession's X-ray goal of identifying pathologies and fractures while downplaying and/or disregarding spinal displacements. Without a scientific method for identifying, taking and measuring spinal displacements and the correction or worsening of these displacements produced by adjusting and/or other clinical procedures, the chiropractic colleges have added more diagnostic- and symptom-orientated clinical procedure classes to their curriculum. This is despite the fact that symptomatic disease diagnosis and treatment has proven to be less than 20 percent accurate.

Change that is no better than that from which we are changing is not progress. Further, if we adapt the medical model, we can't truthfully describe ourselves as a "separate and distinct science, philosophy and art." When we no longer know what our product is, we have lost our identity. Without an identity, marketing our product is difficult and/or impossible. Motivation and purpose in life is associated with an identity.

It would appear chiropractic is fast becoming just another symptom-chasing treatment therapy - a "physical pill" to take the place of the medical treatment's chemical pill. However, using an adjustment for a temporary "pill" has resulted in the statement we hear over and over again from

present and former users of chiropractic care: "Once a person starts getting chiropractic adjustments, they always are in need of another adjustment."

If conventional chiropractic instruction and practice taught in our colleges do not objectively correct spinal form and function, what does it do? After a temporary change in symptoms, what are the short- and long-term effects of sudden applied compressive adjusting force and/or a sudden applied compressive force of any kind on the spine? There appears to be evidence that conventional, sudden applied compressive-force adjustments adversely affect the spine. Would traction-force adjustment also adversely affect the spine?

These are questions that need to be asked and scientifically answered for our own identity, feelings of self worth and continued purpose in life, as well as for communicating with each other and the scientific community. Do we have the courage to find and know the truth? Can we afford the luxury of doing nothing while others investigate and expose flaws in our clinical procedures? We can't keep doing the same thing and expect different results.

Presently, there is evidence conventional chiropractic's physical pill, like medicine's chemical pill, can produce side effects such as soft-tissue and joint pathologies. Further, symptom relief (both physical and chemical) becomes less and less effective with each application, causing patients to need more and more until they end up with more problems than they started with.

The Patient and the Paradigm Shift

Until the 1950s, there existed minimal to no insurance coverage for chiropractic. During the '60s, '70s and '80s, insurance coverage was abundant. During this time, chiropractic care changed from fixing the subluxation - the cause of the disease process - into the diagnosis and treatment of pain and symptoms. As soon as third-party pay ended, the patient discontinued care.

Patients now have limited insurance coverage or no coverage at all. New patients are scarce and they believe chiropractors correct spinal form and function in addition to eliminating their symptoms. Therefore, unless they are convinced (with evidence) you can fix the cause of their problems, as soon as the pain quits, they quit. Often they don't accept the recommendations or even start care.

If we can accept that the potential new patient base is well-read, intelligent, and willing and able to pay for their own care without relying on insurance, then we can understand they want their spines fixed and they want to be taught how to care for their own spine - just like they are taught to care for their teeth - with periodic checkups.

A Paradigm Shift Precedes Great Change

The science historian Thomas Kune, in his study of paradigm shifts, has concluded they follow certain stages.³ It is noteworthy to understand and apply this knowledge to determine if there is a necessity for such a shift in the chiropractic profession. Kune's findings are as follows:

- New findings that cannot be explained with currently accepted paradigms usually are first rejected as spurious or fallacious by the establishments. If the new information is compelling, the old model might be stretched to incorporate the new findings.
- When the new observations can no longer be discounted or accommodated, rather than give credence to the new observations and findings, it's acknowledged the present paradigm is at fault. (The establishment usually is the last to realize a paradigm shift is needed, is taking place, or will happen whether or not they condone it.)
- An elected committee from the establishment, not necessarily possessing scientific ability

(usually a college and/or political organization), investigates the facts that support the new paradigm.

- If there are positive findings, the establishment usually challenges them and the need for a transition from the old to the new paradigm.
- Parts of the establishment often break with the progressive wing and retain their old paradigm rather than embrace the new scientific findings, even if embracing the new paradigm would further their ultimate goals.
- Acceptance of the new paradigm by the progressive wing of the establishment usually is rapid after it becomes evident that it makes life easier, as well as predicts and lays the groundwork for newer and better procedures that will continue to further their science and goals.
- Eventually, the nonprogressive wing of the establishment will accept and become the most aggressive supporter of the new paradigm, just as they had aggressively supported the old one that has been replaced.

Change is part of the evolution of anything valuable. To remain stagnant in the face of technology and research almost always guarantees the decline of that which was once an accepted profession. To keep chiropractic alive and viable in the current technological age, it's imperative we review its history and set goals for the future - not through the eyes of dogma but through the vision that accompanies scientific facts. The new paradigm for advancing chiropractic must include systems of care that ensure spine and posture rehabilitation and correction.

References

1. *Webster's New World Dictionary, 2nd ed.* New York: Hungry Minds Inc., 2002.
2. *Ibid.*
3. Kuhn T. *The Structure of Scientific Revolutions, 3rd ed.* Chicago: University of Chicago Press, 1996.

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