

Research and Evidence-Based Practice Require a Cultural Change in Chiropractic Education

William Meeker, DC, MPH, FICC; Dana Lawrence, DC, M. Med. Ed., MA

Chiropractic evolved as an embattled and empirical clinical practice, without the academic and scientific trappings demonstrated by many health professions. As a result, despite something of a scientific evolution over the past two decades, chiropractic still demonstrates distinct cultural attributes that keep it from adopting critical thinking and evidence-based, clinical decision-making [evidence-based practice (EBP)].

The most prominent cultural feature is the general lack of understanding about scientific thinking and methods, even to the point of suspicion of science. Surveys have documented these attitudes, and the result is amply mirrored by the relatively small amount of original research that chiropractic has been able to generate historically. The turbulence surrounding attempts at developing best practices, which have attempted to summarize and apply scientific evidence to clinical decisions, is another example of a chiropractic cultural attribute.

Still, in the past few years, many leaders within the profession have recognized the need for greater emphasis on research and have called upon the profession's educational institutions to step up to the plate and deal with the move to EBP. This is not an easy task.

Two of the major challenges for developing research evidence in chiropractic institutions are the lack of material resources and expertise. To many, it seems obvious that if we just had enough money, we should be able to buy the equipment, space and laboratories that we need. If we just had the money, we could "purchase" individuals with the requisite skill, knowledge and motivation to design, conduct and publish the research that we need. Our problem is money, money, money. The solutions, many say, are find the money, buy the research, and all will be well.

But I don't think so. While money and expertise are absolutely necessary, they are insufficient, in and of themselves, to truly initiate a sustainable, broad-based, highly productive research enterprise in our chiropractic institutions. In our opinion, the root barrier is not (lack of) money, but an institutional culture that is not aligned to encourage a scientific approach.

The concept of culture deals with the values and attitudes held by institutions. Attitudes about why we should do research and why we should care are more powerful fundamental concerns than the relatively simple lack of money. Unless chiropractic institutions can answer these cultural value questions in the right way, they will never be as scholarly productive as they might otherwise be. Money will continue to be in short supply and scientific expertise will not be found or developed. Evidence will still be in short supply and destructive controversy will continue. There are at least two examples of attitude changes that need to occur.

First, it needs to be OK to reasonably and collegially challenge traditional chiropractic theory. Biological theory is important and drives the research process forward, but it takes a back seat in the application of evidence-based practice. EBP is defined as the integration of the best available, scientifically derived clinical evidence, clinical expertise and patient preferences. Theory without evidentiary support provides a weaker basis for decision-making in this paradigm. Furthermore,

when facts begin to demonstrate that a theory is wrong, the theory is changed, not the facts. In the evidence-based approach to practice, biological theories are not sacred, nor do they define a professional identity or public-relations campaign. They are simply the best explanation for observations at a given point in time, and they are subject to change.

It is quite understandable that we should have great reverence for chiropractic's roots, its history and its founders. And, we certainly should not summarily reject chiropractic theory without evidence suggesting we should do so. However, by dogmatically asserting that chiropractic theory is unquestionably true, we automatically create a cultural context that will dismiss, denigrate or ignore revisions suggested from evolving scientific evidence.

This is a huge barrier to scientific work and is an absolute disincentive to those curious individuals who could become productive chiropractic scientists.

Second, it needs to be OK to engage in research as a means to ascertain the "truth." This is not often the reason cited for why the profession needs research. More often, we hear about the value of research as part of public-relations campaigns, because the third-party-pay industry demands it, or because we can finally vindicate chiropractic theory and practice. These reasons are important, and clearly these issues can be helped by research. However, they seem defensive and insecure. Outside the profession, these reasons are seen as selfish at best. In our opinion, engaging in research to find the truly best way to manage patients is a higher calling that no one could dispute. In fact, the search for truth is the most fundamental value embedded in the research process. It is an indisputably necessary cultural attribute of all productive research institutions. A professional culture that does not value the search for truth (as painful, difficult and imperfect as it may be) is not a culture that can truly support scientific thinking and behavior.

In summary, it is our observation that commonly held cultural attributes in chiropractic institutions (not to mention the profession) still seriously hinder the development of research and the application of EBP. We need to change attitudes about the nature of chiropractic theory and about why we need to engage in research. Chiropractic educational institutions are well-positioned to tackle this challenge. College leaders, including governing boards, should understand the ways and means of cultural change and engage faculty, staff and students in intellectual dialog with courage and perseverance. We contend that if our institutional cultures become more aligned with scientific values, money and expertise will readily come our way to support the bright future of the profession.

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