



# Chiropractic Research in the Postmodern World: A Discussion of the Need to Use a Greater Variety of Research Methods

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## ABSTRACT

**Objective:** This paper aims to provide a discussion of postmodern research ideas that could be implemented in the chiropractic profession.

**Discussion:** Many studies on chiropractic care are really more evaluations of one or two modalities alone (such as spinal manipulative therapy / chiropractic adjustments) and do not consider the entire chiropractic clinical encounter. The results of chiropractic care in randomized controlled trials for example have not necessarily shown the results that one might anticipate and the evidence is conflicting. Postmodern research encourages looking at problems from multiple perspectives and requires consideration of local context first and foremost. Qualitative and practice-based / action research methods are postmodern techniques that have been employed sparingly in chiropractic research. These methods could be of benefit as they could reduce the gap between practice and research and provide a more patient-centered means of studying the profession. Several chiropractic researchers have indicated the need to use such techniques to improve the profession and our understanding of it.

**Conclusion:** Implementing research methods that have postmodern perspective could be beneficial for the profession. This is not to say that randomized controlled trials should be abandoned, they are still an extremely necessary part of the health care research landscape, but tempering them with some studies that employ unique postmodern methodologies could be useful in helping expand our understanding of the profession, particularly at a local and clinical level.

**Key Indexing Terms:** Chiropractic; Research; Philosophy; Postmodernism. (J Chiropr Humanit 2007;14:28-33)

## INTRODUCTION

In postmodern philosophy more than one system of thought, or way of looking at the world, may reasonably coexist with others, depending on setting and context and there is an absence of judgment on different ideas

or theories; they are instead assessed according to how well they work with their local context.<sup>1, 2</sup> Chiropractic is a profession that has often been in conflict with mainstream science and medicine as it has maintained a more patient-centered, vitalistic and holistic approach to health care.<sup>1</sup> As such, postmodern thought would seem to be a suitable milieu within which to conduct chiropractic research and gain knowledge on the profession. Interestingly

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though, most of the chiropractic research done, historically and currently, is done from a more modernist, mechanistic, and doctor-centered approach as an attempt to gain legitimacy in the scientific community, and this has not necessarily produced the results that chiropractors would expect.<sup>1</sup>

## DISCUSSION

Postmodern research approaches applied to chiropractic research may be useful as there have historically been inconsistencies between chiropractic research and practice. For example, chiropractors have long touted the effectiveness of their treatment including but not limited to spinal manipulative therapy (chiropractic adjustments) for the relief of back pain, but the literature on manipulative therapy conflicts with this notion as some studies, systematic reviews, and practice guidelines find it more effective than other treatments (including medication, acupuncture, or physiotherapy) while others find manipulation only marginally or no more effective than other modalities or even placebo for back pain.<sup>3</sup> This is in conflict with the high levels of satisfaction with care and outcomes among chiropractic patients, particularly when compared with medical care.<sup>4</sup> It has been suggested that this inconsistency could be explained by the diverse settings, cultural practices, and socioeconomic influences within which chiropractic patients are seen in practice, a very postmodern idea that is yet to be assessed.<sup>3</sup>

Conducting chiropractic research in a scientific manner has often meant that only the effectiveness of manipulation is assessed and the entire chiropractic clinical encounter is not considered, thereby reducing the entire profession to one procedure while there are likely other factors afoot in explaining the success of the profession and

the satisfaction of its patients such as the doctor-patient interaction, beliefs and expectations, and the effect of touch.<sup>1</sup> Some authors<sup>1, 3</sup> have indicated that the randomized controlled trial may not be the ideal means to show the effectiveness of manipulative therapy and chiropractic care in general because RCTs do not take these factors into account; these authors advocate postmodern research techniques such as practice-based research and mixed qualitative/quantitative research methods.<sup>1-3</sup> Hawk indicates that chiropractic research strategies that encourage vitalistic or holistic lines of thought (ie, postmodern research) that can provide knowledge or insight into the factors that make chiropractic care successful should be encouraged.<sup>1</sup> She further advocates study designs that are community based and more observational or practical in nature and look at the entire clinical encounter.<sup>1</sup> Hawk comments that chiropractic research could be conducted without a purely scientific/modernist approach and perhaps chiropractic researchers should consider the use of whole systems research where the methods chosen should be consistent with the paradigm under study - this is very much a postmodern idea.<sup>1</sup>

To date, many of the postmodern research techniques discussed by Hawk and Fox<sup>1, 2</sup> have seen very few studies done in the field of chiropractic. For example, only one major study that employed mixed methods (qualitative and quantitative) regarding chiropractic care could be identified in the literature.<sup>5</sup> This study by Evans et al<sup>5</sup> involved qualitative interviews that were conducted as part of a randomized clinical trial: the semi-structured interviews were intended to elicit information regarding the factors that patients with lumbar disc herniations felt were most important when they considered their level of satisfaction

and overall improvement and which outcome measures were of importance to them.<sup>5</sup> This qualitative component was done with the idea of informing subsequent scientific research and the ability of qualitative research to enhance the interpretation and application of clinical research and ensure that the measures being employed are actually important to the subjects was noted, again a notion very much in line with postmodern thought.<sup>5</sup> Interestingly Evans et al noted that participants were more than happy to participate in a qualitative semi-structured interview when compared with the idea of filling out a questionnaire as it allowed them to fully convey their opinions, it was also useful as the researchers could understand the subjects more completely.<sup>5</sup> Evans et al recommend the further utilization of such mixed methodologies in chiropractic research as it can reflect patient beliefs and perceptions and they comment on the idea of qualitative and quantitative research working together around a research question in an ongoing manner to create knowledge that can result in improved clinical care.<sup>5</sup>

As in many other fields, there is inevitably a conflict and a discernable gap between research and practice and Bolton and others have commented as to how this relates to the chiropractic profession.<sup>2, 6-9</sup> While chiropractors in a recent survey commented on the importance of research, have a positive perception of it, and identify the need for research to help validate treatments to add credibility to the profession, there is inconsistent application of research findings into practice with only about one in four surveyed chiropractors indicating that they apply research consistently.<sup>9</sup> Several authors have commented on the need to implement more research findings into practice and tout evidence based practice as a method to do so but comment on how this technique is

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difficult for many practitioners particularly as some conceive the idea of *evidence* based practice implying that evidence is most important when compared with patient needs and clinical experience, even though scientists supporting evidence based practice insist this is not the case.<sup>7-9</sup>

Research and chiropractic practice have traditionally been disconnected, chiropractors rarely employ research evidence to inform clinical practice and there is resistance and considerable delay in implementing research findings for several reasons, including a perceived lack of connection between research and the clinical experience.<sup>6,8,9</sup> The main impetus of clinical research is to improve practice<sup>9</sup> but this is often done in an idealized setting (such as clinical research facilities), separated from the practitioners who might be affected by the findings while practitioners are generally more interested in research findings that are closely related to their own experience and are relevant and valid for their own setting and evidence based practice methods do not necessarily allow for this.<sup>2</sup> Postmodern research invokes a need to link research with practice and acknowledge the complexity and diversity of local settings, the context of knowledge and the value of experience: researchers would not be seeking actual truth as truth is more local and relates only to the data collected and is seen as difficult to generalize to other settings.<sup>2</sup> In postmodern research the focus is more on practical knowledge that accepts context and develops knowledge that is geared to informing practice and improving local service delivery.<sup>2</sup> This may be more conducive to chiropractic research and the chiropractic profession as a whole in getting

research findings implemented into local practice.<sup>2</sup>

Fox advocates a postmodernist model of action research that is transgressive with existing lines of thought while being committed to reflexivity, collaboration, and exploring differences while maintaining an engagement with the political and ethical setting and scenario.<sup>2</sup> His form of action research is practice-based and has three key features where the research must: (a) reflect the single local setting only, (b) be constitutive of (or encouraging) difference in that it acknowledges diversity, and (c) involve theory building within the setting that the research is conducted and can relate to practical activities in that setting.<sup>2</sup> Such action practice-based research encourages innovative study designs be developed and implemented and blurs the lines between researcher and researched, acknowledging the importance of the views of the patient, with researchers, practitioners, and patients working collaboratively in all aspects of research including question formulation, study design, data collection, etc.<sup>2</sup> All involved can aid with both locating and implementing relevant findings and trying to improve practice while decreasing the division between researcher and practitioners, research versus clinical experience, and theory versus practice as is so often seen in evidence based practice.<sup>2</sup> Conducting this type of action research would make the research highly involved with local practice, would allow for easier implementation of any findings, and this could be applied to obtain knowledge about and aid the chiropractic clinical experience.<sup>2</sup> It is also very patient-centered and that fits in well with traditional chiropractic lines of thought.

Some of the benefits of conducting chiropractic research in an actual practice

environment may come from the relative ease of subject recruiting particularly for short-lived conditions such as acute neck or back pain and the natural feel of the patient experience including the use of frequent visits and follow-up care, the lack of pharmaceuticals used, the emphasis on self-help and prevention, and the idea that chiropractors are often seen as better communicators than their medical counterparts.<sup>4,10</sup> To date, there has been very little practice based research conducted in chiropractic and that which has been done thus far has certainly not been done from a postmodern perspective but rather using a modernistic/scientific approach.<sup>10,11</sup> For the most part the chiropractic practice-based studies have been very rigid in their protocol, attempting to conduct clinical research in a practice setting and implement strict procedures into a more natural setting.<sup>10,11</sup> As an example a large practice-based chiropractic study in Oregon<sup>11</sup> that involved sixty chiropractors required a tremendous amount of strict organization for the well-defined protocols for recruiting and data collection to be implemented and executed.<sup>11</sup> The authors of this study noted that several important challenges were encountered in this study including unforeseen obstacles, keeping practitioners and staff (both clinical and research) involved and enthusiastic about the study, implementing protocols without being invasive in the clinical setting, and knowing how to direct the large amount of time, energy, and funding required.<sup>10,11</sup>

Suter et al<sup>9</sup> indicate that practice-based research is useful to make research more accessible and relevant to practitioners, however noting that time and resource constraints may be restrictive barriers to widespread practice-based research. Nyiendo et al<sup>11</sup> further mention it is difficult to balance the demands of a formal research

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study and clinical practice in a manner that will ensure that patients, practitioners, staff, and researchers are all satisfied in a practice-based research project and that the costs and benefits to all involved need to be considered throughout the project.<sup>11</sup> Fox indicates that postmodern forms of practice based research could be conducted with involvement from all involved (patients, practitioners, and researchers) and include a methodological pluralism that incorporates qualitative approaches such as interviews and focus groups, and this is certainly conceivable for chiropractic for potentially yielding new and valuable information about practice and the results obtained therein.<sup>2</sup>

There certainly seems to be an awareness of the need for the chiropractic profession to utilize more and different research methodologies and approaches as recent papers discussing future directions for chiropractic research have commented on the need for more qualitative research (or at least mixed qualitative/quantitative studies) to look at the psychosocial effects of patient care, along with the formation of practice-based research networks and the conduct of practice-based and patient-centered research.<sup>1,4,7,12</sup> These notions imply that the profession has realized the value of postmodern research techniques as they may help chiropractic researchers determine why chiropractic patients are so satisfied despite the fact that modernist/scientific research approaches do not necessarily produce ringing endorsements of the profession.

Bolton comments on the postmodernist age as being a tremendous opportunity for chiropractic to advance using postmodern research in that it is more patient-centered and acknowledges that there are different

ways of looking at the world.<sup>7</sup> By using a variety of methodologies that reflect clinical practice, the profession could be improved and not just proven.<sup>7</sup> Implementing postmodern research ideas does not mean that scientific research into chiropractic will go by the wayside, there will still be a need to conduct such research but tempering it with other methods and lines of thought should become a priority for the profession. A postmodernist approach would entail looking at the relationship between chiropractic research and practice as not needing to be the antithesis of one another. With this in mind it may be possible to forge ahead together to provide knowledge about the profession.<sup>2</sup>

## **CONCLUSION**

Implementing research methods that have postmodern perspective could be beneficial for the profession. This is not to say that randomized controlled trials should be abandoned, they are still an extremely necessary part of the health care research landscape, but tempering them with some studies that employ unique postmodern methodologies could be useful in helping expand our understanding of the profession, particularly at a local and clinical level.

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