



CHIROPRACTIC (GENERAL)

## An Introduction to Evidence-Based Clinical Practice - Again

Dana Lawrence, DC, M. Med. Ed., MA; Christine Goertz, DC, PhD

*Editor's note:* This is the first article in a new column focused on evidence-based practice. Future articles will provide evidence-based answers to research-related questions. The column features an [affiliated blog](#) where DCs can post questions for the authors.

---

One of your patients is in for treatment and catches you off guard by asking you a question about a news article she recently read. It seems that a new intervention for back pain was found to reduce the rate of serious side effects by 50 percent. She wants to know what you think about that. What questions would *you* have in order to provide her an answer?

Would you consider who funded the research? What about the population included in the study? Do they match your own? Do they differ? Does the new intervention have its own side effects? Are they more severe than the old intervention(s)? Does the new intervention cost more money to provide, compared to the old? And what, by the way, was the rate of side effects to begin with?

It turns out the rate of side effects in the established intervention was about 1 percent. In the new intervention, it is .5 percent. This is indeed a 50 percent reduction. However, because you know a little about this thing called *evidence-based practice*, you also know that if the original rate of side effects was 50 percent and the new rate is 25 percent, that is also a 50 percent reduction.



You might recall that this is called "[relative risk reduction](#)," which is not the same as "absolute risk reduction." In the first case, the absolute risk reduction is .5 percent, while in the second it is 25 percent. Yet both show 50 percent relative risk reductions. All of this takes some thought as you give the patient your answer. (By the way, what is your answer?)

If you considered any of the above, you were involved in using evidence-based health care. You may not have known it, but you were. Well, how did this all come about?

Evidence-based medicine developed out of a movement started by a group of medical educators at McMaster University during the 1980s. These physicians observed that a gap had developed between what occurred in clinical practice and what was obtainable in reports of clinical research. Essentially, clinicians could not stay abreast with new research because it was being produced so fast; consequently, they were not putting into practice the most current information.

Our guess is you already know this, because try as you might, it is very hard to keep up with things. Evidence-based methods were designed to bridge this gap. This concept has been embraced by the chiropractic profession as well, leading to what we now call evidence-based chiropractic (EBC) or evidence-based chiropractic practice (EBCP).

EBCP is unique in several ways:

- For example, chiropractic interventions are difficult to investigate by experimental methods, because it is hard, if not impossible, to design an effective placebo, and it is impossible to blind either the doctor or the patient to the interventions being studied. As a result, there are fewer chiropractic articles that use placebo group controls than in other scientific or medical disciplines.
- Chiropractors commonly use a number of treatment modalities in addition to adjustment, while clinical trials may focus on a single intervention in order to isolate its effects.
- Traditionally, it was hard for chiropractors to obtain funding for rigorous research, though

this has certainly changed (all the more so here at Palmer College of Chiropractic).

But these challenges have also meant we have a uniqueness to our profession. While we might not have the most rigorous of studies, we do have a pretty impressive body of evidence to support what we do.

Sackett has stated that EBP is "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients." This is an important statement, because in it we see that the practitioner's clinical expertise is an important component. The goal is to integrate clinical expertise with best evidence on behalf of the patient.

EBCP is therefore not in any way cookbook medicine or practice; it is the integration of best evidence with the past training and expertise of the clinician, resulting in better care for the patient. And new evidence is replacing old all the time.

Patient preferences also play an important role. This includes the personal values, concerns and expectations patients have about their care. Considering these are critical steps in the EBCP process.

- *Personal values*: These are the beliefs patients have about the care being offered to them, which may be based on personal, religious or philosophical reasons.
- *Patient concerns*: Such as financial concerns, time constraints, office location, ease of parking, etc.
- *Patient expectations*: This relates to the degree that patients will accept a doctor's recommendations. Compliance is an ongoing problem in patient care, as well as in clinical trials and other forms of research.

As Haneline states in his [excellent book](#) on evidence-based chiropractic practice (Haneline M. *Evidence-Based Chiropractic Practice*. Sudbury, MA; Jones and Bartlett, 2007), EBCP is "actively seeking support for and improvement of chiropractic clinical practice through the integration of the best available research evidence, combined with clinical expertise and patient values." The above is based on material in his text, which we strongly recommend chiropractors purchase.

We hope to engage you, the reader, in an ongoing dialogue related to evidence-based care. Our next column will continue the discussion.

---

For additional information about Drs. Lawrence and Goertz including a link to their columnist page, [visit their blog](#).

MARCH 2014