

## How to Build an Evidence-Based Practice: Part II

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Evidence-based practice continues to be on the top of the mind of all payers, governmental entities, doctors and other practitioners. It's spurring more research in outcomes and quality-care measures. Patient selection for optimal results is a core ingredient of improving the outcomes of care. All health care providers are involved in the new paradigm. Physical therapists are involved in looking at improving outcomes in this area and have turned up the level of their research. Even back in 2004, Childs, et al., were looking at clinical prediction rules for optimal selection of patients who would respond best to spinal manipulation.<sup>1</sup> Physical therapy research such as this is now turning up in respected medical journals.

Physical therapists are not only interested in the benefits of manual medicine and manipulation of the spine, they have created Doctor of Physical Therapy programs, with certification in manipulation, to better compete for the patients. Increasing economic demands by payers and policyholders are creating increased competition between providers to provide the best and most cost effective care. The Agency for Healthcare Research and Quality has begun a PR campaign to enlist patients to question the care provided by their doctor, through their "Questions are the Answer" program.<sup>2</sup> This all makes it clear that health care professions are experiencing increased competition for credibility and effectiveness in their community. This competition is between practitioners and professions. The playing field is becoming more level, as political and philosophical bias loses its power. The chiropractic profession must recognize this and rise to the occasion.

In part one of this article, I discussed how a practitioner can begin to obtain the knowledge on evidence-based practice. The important fact to most practitioners is how to understand evidence and how to find evidence to answer the clinical questions. The first question is: how do we construct the clinical question?

Let us say that you just completed a consult and examination of a 59-year-old female who presented with chief complaints of low back pain, upper back pain, neck pain and parasthesia in her hands. This patient was a previous patient of yours and was satisfied with the help she received for the midback pain when she was treated with spinal manipulative therapy three years ago. However, now her exam shows swelling in her hands and feet and her face looks full. You sense this is a different condition from what you usually treat. It reminds you of some conditions you learned about in school, but you can't put your finger on it. You decide that treating her with spinal manipulation, as you did a few years ago, may not be the best course and may even be contraindicated. You enjoy good outcomes on your patients and want to keep your batting average up. You therefore need to construct a clinical question to research the optimal course to take with this particular patient.<sup>3</sup> The question may be constructed to include background questions of general knowledge on the prospective condition along with foreground questions of specific

knowledge that applies to your patient. This will allow you to make an appropriate clinical decision. The foreground questions should consist of the patient or problem, intervention and clinical outcome. It also might consist of a comparison, if relevant to the decision.

In this case, the initial background question would be: What type of conditions would encompass the broad array of symptoms of chronic, recurring - full-spine pain, parasthesias and swelling? The foreground question would be: In a 59-year-old female with chronic, recurring, full-spine pain, parasthesias and swelling, would spinal manipulation be the best course of treatment for the best outcome of this patient, or would either pharmacological care or no care be better options?

You tell the patient that in your opinion, her case is not the same as three years ago and you want to make sure she gets the appropriate care. Since there is joint swelling, you decide to order an arthritic profile blood test and you will be investigating her condition further. She is pleased that you are taking her seriously and want to give her the best care, even though she was sure that if you just "cracked her like last time" she would feel much better. At lunch, you take these questions back to your computer and perform a quick literature search. A quick search of PubMed with the search terms "polyarthralgia AND swelling" reveals a number of papers on various inflammatory arthropathies. You then refer to your old Robbins' pathology text and note systemic lupus erythematosus and scleroderma as having similar presentations and additional findings that the patient mentioned in the consult.

The test comes back positive for HLA B27 with a low-moderate titer, and negative for RF factor.

The evidence indicates this is a red flag for manipulation.<sup>4</sup> You are happy you did not provide any high-velocity manipulative procedures, as it could have aggravated the condition. You subsequently refer the patient for consult with a rheumatologist. She insists on seeing a local doctor. However, they send the patient back without any diagnosis or treatment and reportedly tell the patient that it's nothing and will go away. She, of course, is dissatisfied and feels the doctor did not take her seriously.

You now have the information from text and current literature regarding the condition. On her return visit, she is getting progressively worse. You, therefore, convince the patient of the importance of another referral. Armed with this information you call another rheumatologist and discuss the case, along with the evidence on which you base your concerns. They agree to a consult, and subsequently diagnose CREST syndrome and send you the report. (Gosh, CREST syndrome! What's it got to do with her brushing her teeth?) The patient returns and wants you to explain her condition. When you received the report, a quick Google search informed you that CREST syndrome is a subset of scleroderma and it outlined the common treatments and limited success. You explain this to the patient. She is so pleased to know you managed her case and found out the cause of her problem, even though you cannot give her a lot of relief. She subsequently tells all her friends about how you cared for her when no one else could and you start receiving multiple referrals from her. In addition, the rheumatologist refers you a couple of patients with non-inflammatory low back pain.

This evidence-based care is looking better every day. You got the gratification of caring for a patient to whom you could have caused harm, and you are building your practice on solid referrals without the overhead expense of advertising. All it took was a few minutes on two occasions. It built up your credibility in the community and helped a patient.

### *References*

1. Childs JD, Fritz JM, et al. A clinical prediction rule to identify patients with low back pain most likely to benefit from spinal manipulation: A validation study. *Ann Intern Med*, Dec. 21,

2004;141(12):920-8.

2. U.S. Department of Health & Human Services. Available at [www.ahrq.gov/questionsaretheanswer](http://www.ahrq.gov/questionsaretheanswer).
3. Straus SE, Richardson WS, Glasziou P, Haynes RB. *Evidence-Based Medicine, 3<sup>rd</sup> edition*. New York: Churchill Livingstone, 2005.
4. Haldeman S, Chapman-Smith D, Petersen D. *Guidelines for Chiropractic Quality Assurance and Practice Parameters*. Sudbury, MA: Jones and Bartlett, 1993.

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