

# Things that make me nervous

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**C**ertain things make me nervous. For instance, an encounter with a bear in the wild, which has happened to me, is scary. And something else that I have experienced lately—driving on Seattle’s hilly roads when they ice over creates more than a little angst. The funny thing is, even though I am the Associate Editor for evidence-based dentistry, the topic of evidence-based care has also been making me nervous lately. That seems odd, but let me explain.

I still commonly encounter 2 camps when it comes to evidence-based dentistry. The first includes those who are skeptical of this approach. They feel that they have been practicing the equivalent of evidence-based care all along, and that narrative reviews are just as good as the fancy new systematic reviews. This makes me nervous, because these people are reluctant to accept the paradigm shift that constitutes an evidence-based approach. Although researchers have always tried to elucidate the truth, certainly the heightened awareness of methodological issues in clinical research allows us to conduct more valid research these days. Similarly, we are better able to reduce bias and produce more generalizable results. The rules that have been developed for conducting systematic reviews also result in better summaries of the literature. In my mind, these are worthwhile and important improvements in how we produce and use scientific information, and the rejection of this approach as nothing new indicates a lack of understanding of these principles. So, I am nervous about this group, but I hope that giving them more information about evidence-based care will change their minds.

The second camp includes those who now carry the evidence-based torch with religious fervor, believing that the accumulation of systematic reviews on every orthodontic topic will save our profession. This makes me nervous, too. An evidence-based approach to orth-

odontics is a tool that assists us in providing the best care to our patients. Therefore, systematic reviews should be conducted on important topics, with a rigorous and deliberate approach, to summarize the best evidence. If the literature in a certain area is sparse, conducting a systematic review does not add much meaningful information. Something cannot be produced from nothing. On the other hand, when evidence does exist, attempts should be made to use the highest levels and to synthesize the findings so that they are clinically useful. Otherwise, performing a systematic review or a meta-analysis is simply a process without purpose.

And supporters of evidence-based dentistry should still practice this approach with caution. Why? Because systematic reviews, the hallmark of evidence-based methods, are intended to be periodically updated; this implies that the “truths” they provide today might not be the “truths” of the future. Therefore, it makes more sense to say that current evidence “supports” a certain position, rather than that it “proves” something without doubt.

Finally, I am nervous about an evidence-based approach to dentistry because some of our systematic reviews are not being conducted in the most rigorous manner. Although this is nothing new, the problem is compounding quickly because systematic reviews are becoming so common. Therefore, I believe that we must acknowledge this unfortunate situation—not all systematic reviews are systematic, and not all meta-analyses are analytical. I say this with much hesitation, because it will only offer fuel to the evidence-based detractors. And yet, I think the spirit of the evidence-based movement requires that we broach this topic. It is naïve to assume that every article called a “systematic review” reports accurate and credible information, and we must still be discriminating when we read the literature.

I do not mean to discount an evidence-based approach. On the contrary, I still believe very strongly that there are significant benefits to practicing evidence-based dentistry. Good systematic reviews can help greatly to summarize the literature. However, we cannot accept their findings blindly. These statements are consistent with beliefs I have held all along—that each

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of us is responsible for understanding the principles of good clinical research, the hierarchy of evidence, and the rules that should be used to conduct a systematic review. It is our right and our responsibility to be informed consumers of information, whether it is a case report or a meta-analysis.

I am nervous now that some people might view systematic reviews and evidence-based methods more critically, but I think that can only be a good thing. Things of value should be able to withstand scrutiny. Having gotten this off my chest, I feel a little less nervous.

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