

uct,¹¹ and it is unclear whether the results of such industry sponsored trials are reliable.

A Call to (Broken) Arms

Only two options exist. The first is that we accept that, under exceptional circumstances, common sense might be applied when considering the potential risks and benefits of interventions. The second is that we continue our quest for the holy grail of exclusively evidence based interventions and preclude parachute use outside the context of a properly conducted trial. The dependency we have created in our population may make recruitment of the unenlightened masses to such a trial difficult. If so, we feel assured that those who advocate evidence based medicine and criticise use of interventions that lack an evidence base will not hesitate to demonstrate their commitment by volunteering for a double blind, randomised, placebo controlled, crossover trial.

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Commentaries

The True Goal of Evidence-Based Dentistry

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In a recent edition of *Evidence for Dentists*, “the journal dedicated to the evidence in dentistry,” I noted the following commentary in an unsigned letter to the editor:

It is a great honor to confirm the monumental efforts of Smith and Pell¹ through our own systematic review. We conclusively agree that the conventional wisdom regarding the efficacy of the parachute as an air descent safety device has no merit. In the absence of such evidence we must now consider substantially equivalent alternative methods of controlled descent that include vigorous arm motions known as flapping, use of the legs to assist in the establishment of a more favorable horizontal vector, or the likely capture in the arms of a patrolling comic book character.

I wonder if others also sense the glee displayed in the writing of this anonymous author while reporting that evidence is lacking to support the parachute as a safety device for gravitationally challenged humans. The alarming consideration is that there appears to be a growing cohort of individuals eager to dismiss any evidence derived from studies other than randomized clinical trials. When this group meets, the scientific sessions are short, consensus is strong, and conclusions are decisive. Unfortunately, this group rarely advocates clinical procedures and, it appears, their general opinion is that dentistry is first cousin to the tribal witch doctor.

Alas, evidence-based dentistry (EBD) continues to float in a sea of confusion. EBD was not designed to demonstrate how poorly the profession has performed in gathering evidence. Instead, EBD has always been concerned with the accumulation, analysis, and use of the best evidence available at a specific point in time to address clinical conundrums with solutions that are more likely to succeed.

The reputation of EBD appears to suggest a dogmatic, unyielding response to commonly accepted methods of care. The suggestion is that EBD clearly recognizes the routine superiority of randomized, prospective, controlled studies over all other forms of investigation. The only problem with these perceptions is that they are wrong!

Consider that the easiest way to ensure that a research study is referenced in scientific literature is by making the study an RCT. In addition, the most fool-proof method to establish desired results is to design a study that selects a control that inevitably performs worse than the test. This happens often when a proprietary device is tested against a “control” that is manufactured specifically for the study. In reality that “control” had nothing more than a physical resemblance to a proprietary device that could or should have been the true control. The unchosen device may have been considered as a gold standard, but the look-alike may not have been a similar clinical performer. Hence the results of the study were determined by study design rather than clinical outcome.

Truthfully, EBD is nothing more than a dedicated effort to identify evidence established from studies where bias was minimized. The RCT design works well towards this goal but there are many ways to perform unbiased studies. The key to EBD is bias and the goal of EBD is to minimize bias, as doing so takes the profession away from reverential beliefs and propels it towards more fundamental knowledge.

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Evidence-Based Dentistry 2006: Where Are We?

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Over 15 years ago, a perceived lack of high-level clinical dental research, plus dentists' apparent inability to discern the veracity of much that was published or presented at meetings, provoked this journal's editor, George Zarb, to seek a prosthodontic adaptation of David Sackett's classic work, *Critical Appraisal of the Literature in Medicine*. Together with Jim Anderson, his University of Toronto academic partner, George Zarb sought the guidance and direction of David Sackett's group at McMaster University, where Anderson had also studied. Sackett had pioneered a much-needed paradigm and termed it evidence-based medicine. Zarb's initiative led to a special course of study by 10 North American prosthodontic educators at McMaster, who then went on to develop an evidence-based den-

tistry model. While other academic colleagues undertook similar initiatives, it was this group of prosthodontic scholars who played a seminal role in disseminating the concept of EBD via 2 international symposia and a series of EBD articles that remain easily accessible (<http://journals.elsevierhealth.com/periodicals/ympr/content/evidencebased>).

Those early, heady convictions accompanying the topic's introduction survived the many subsequent attempts at gross- and fine-tuning of the original notion. However, a certain amount of confusion also has been elicited by EBD and it is therefore opportune to pose the question: How far have we come and where are we today? As one of the original 10 converts to the new clinical thinking of EBD, I would unhesitatingly answer “very far” to the first half of the posed question. Consider the following facts: (1) The Cochrane Collaboration (www.cochrane.org) publishes systematic dental reviews; (2) there are currently 2 evidence-based dental journals; (3) Dental Clinics of North America devoted an entire issue to the topic¹; (4) Don Brunette wrote a superb text, titled, *Critical Thinking: Understanding and Evaluating Dental Research*²; (5) there are numerous EBD articles published in various journals

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