
Letter to the Editor

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In a recent editorial in *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology* (103, 6, June 2007), Professor Spångberg, Endontology Section Editor, stated that it is “...very hard to undertake a systematic review to answer a narrow question. Such GIGO (garbage in, garbage out) can easily lead to biased conclusions and reinforce already existing biased conclusions...” Furthermore, he added that “...systematic reviews have been suggested as a remedy for this information overload. Certain statistical methods, e.g., meta-analysis, have also been introduced for the calculation of a more comprehensive summation of the compiled results from studies with small sample sizes. These findings would then serve as an authoritarian guide for evidence-based practice. Good clinical endodontic literature is still infrequent and it may still be a while before it can support authoritative clinical meta-analysis projects...” [1].

It is well established that Dr. Spångberg has been one of the most preeminent mentors of Endodontics for the least several decades, and has aided the development of this field both clinically and scientifically. He has unquestionably raised the standard for scientific writing and communication as Editor of the Endodontology section at Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology. Nevertheless, in his editorial on Systematic Reviews in Endodontics, Professor Spångberg demonstrates a profound misconception about the process and the goals of Evidence-Based Dentistry Practice’s (EBDP).

We understand Dr. Spångberg’s concerns since the field of Endodontics had been strongly dominated by personal views and opinions: teaching and clinical practices still tends to suffer today largely by being based on expert opinion in the absence of sound clinical data. EBD science comes to solve this problem, as argued by Dr. Torabinejad [2], who stresses that the introduction of the evidence-based philosophy into the field of endodontics will affect education, research, endodontists, patients, and policy makers. There would be more emphasis on the integration of the scientific aspect of endodontics with the art of endodontics. Endodontic education would focus more on why to do certain things rather than how to perform them. By training experts in the area of evidence-based dentistry, and through inclusion of evidence-based dentistry concepts in the dental and post-graduate curriculum, students will learn the value of conducting systematic reviews and determine gaps between what is known and what is unknown, and conduct evidence-based clinical decision-making. This will effect improved differentiation between well-established evidence and personal experiences and opinions, and eventually enhanced integration between the basic science of endodontics and clinical research in endodontics.

A remarkable definition of Evidence-Based Dentistry Practice (EBDP) is given by Chiappelli and collaborators [3, 4]: evidence-based decisions for treatment must be based and grounded on recommendations obtained and derived from the best available research evidence. Starting from clinical observations of the patient, a population, intervention, comparison, outcome (PICO) question is generated, which leads to an intense and comprehensive search of the literature in which reports on drugs, devices, or dental procedures and protocols are systematically gathered by evidence-based researchers. The body of research must be systematically evaluated for the level of evidence and the quality of evidence, and when appropriate, over-arching statistical evaluation of the findings is performed by meta-analysis or meta-regression. The goal for the end product of this systematic process of research synthesis is incorporating the information generated from the best available evidence into revised clinical practice guidelines. This information can be incorporated in the process of clinical decision-making by the endodontists. The goal of is to maximize the benefit to the patient, increase the success of the intervention and minimize personal and financial risk. Patient preferences, satisfaction, and clinical efficacy are EBDP primary concerns. Moreover, and as importantly, the concepts of evidence-based treatment, to inform patient care decisions, can affect specialists, general dentists, patients, employers who purchase insurance packages, insurance companies, and policy makers alike [5].

In brief, the science of EBD will improves not only the clinical decision-making process in endodontics, but also the endodontic clinical literature: countering precisely the problem of the profession at present, as decried by Professor Spångberg. Evidence-based dentistry, by its very reliance on the systematic scientific process of research synthesis, not only permits the identification of “garbage” (to use Dr. Spångberg’s terminology) so that it is not taken into consideration in decision-making for clinical treatment, but also provides the elements to identified inherent weakness of the field so that such “garbage” is not propagated, continued or expanded; thus, leading to improved primary research in the field. The very utilization of the

systematic critical evaluation of the existing literature will help generating better and improved research, which sooner than later will perfectly “...*support authoritative clinical meta-analysis projects...*”.

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