Editorial

Evidence-based Periodontology: From Knowledge and Attitude to Practice

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rom the view of evidence-based approach to dental practice, periodontists may be categorized in four groups: those who are familiar with evidencebased periodontal practice, those who do it, those who hope to do it, or those who attempt to do it. In the first category, the practitioners might take the challenge to take the field to the next leading edge; these individuals are the present leaders of our profession. The practitioners think they know about evidence-based periodontology, and claim that they have been doing it all the time. They see nothing new in this concept, and thus, believe they do not need to change! The other group state frankly they have no idea about evidence-based periodontal practice, and are really hesitant to touch it. They will most likely keep their traditional approach, or at best, take a few steps in pondering the approach but turning back into the model of practice with which they are more familiar and comfortable. The forth group are those who have no idea about evidencebased periodontology, but believe they have to join other practitioners in the field in order to provide the best service to their patients. They seek to grow professionally and will most likely attempt to be more familiar with this new model of practice on a constant basis. They, in fact, shape the future of evidence-based periodontal practice.

Evidence-based periodontology as other fields of evidence-based dentistry has been considered as an innovative approach to dental care. Mosby's Medical Dictionary has stated that evidence-based dentistry is "a systematic practice of dentistry in which the dentist finds, assesses, and implements methods of diagnosis and treatment on the basis of the best available current research, their clinical expertise, and the needs and preferences of the patient..." While this definition may provide a wonderful picture for evidence-based dentistry, in reality this issue suffers from several limitations that affect its practicality and application. Additionally, it should be emphasized that evidence-based dental practice is not merely a new "term" for a previously recognized system.

Evidence-based periodontology attempts to implement the hypothesis-driven scientific processes to critically evaluate the research reports from design, methods, and data analysis points of view in order to produce the consensus of the best available evidence. The consensus declarations arise from the systematic review of the literature, and are supported by statistical analysis (e.g., acceptable sampling analysis, meta-analysis, etc.). However, the traditional approach is based on the individual efforts of research or observations without any judgment based on a critical appraisal—and this is the weakest level of evidence!

On mature consideration, it is essential that evidence-based research evolve to include not only the clinical trials but also the other types of study designs from all fields of periodontal research. Many times, the findings of a clinical trial make an avenue for conducting further research in the domains of laboratory, materials, and animals, and of observational clinical investigations. These studies are being vigorously addressed in academic plans and other research institutes. However, the main focus has to remain on the implications and applications of the evidence-based concept in clinical decision-making and implementation.

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