Editorial Before You Prepare Another Systematic Review

I have been told that dentists who routinely read *The International Journal of Periodontics & Restorative Dentistry* select therapeutic options for their patients after a thorough analysis of the most significant scientific literature. I have also done this, and I have appreciated the fact that not much space is provided for systematic reviews (SRs). I don't mean to suggest that SRs are useless, particularly those prepared for consensus conferences. Nevertheless, I share the impression with several other distinguished authors that SRs have been pushed too far. The criteria for what can be considered evidence-based dentistry seem too loose, as in some cases the so-called evidence appears to germinate from the collection of data from studies, according to given rules, that do not necessarily correspond to real patient treatment. Moreover, it seems that clinicians with limited experience in complex cases concentrate their skill in the production of numerous SRs, using the same method for various clinical topics. Many of these reviews, however, conclude that there is not enough evidence to determine which procedure would be most efficacious to solve a problem. Is it really necessary to write an extensive report simply to say there is insufficient data to reach a conclusion?

It all begins with the desire to have an article published in a prestigious journal without putting forth the enormous effort necessary to perform a clinical study. Because of that, more SRs than original articles are being published for some topics, and the trend seems to be in the wrong direction. Indeed, editors are encouraged to publish SRs because they know that these are frequently cited and contribute to a high impact factor.

In preparing a SR, authors can easily eliminate an article because they believe the control was not equivalent to the test, or because randomization was not perfect, or because allocation was not sufficiently blinded. But who is going to judge the quality of the clinical treatment or the correct flap management? Who verifies that the group of selected patients is significantly similar to what is found every day in the global practice of dentistry? Sometimes the reader wonders if the most important person in a research team is the statistician. Many SRs are based on randomized controlled trials (RCTs) alone. Nevertheless, in periodontology and implant dentistry, many RCTs are conducted in university centers and include graduate students with limited clinical experience. What clinical value has a SR with a meta-analysis based on two original papers or that include data from unpublished articles?

Thomas E. Starzl, pioneer in liver transplantation, wrote in *The Lancet* that RCTs are carried out "for reasons that go beyond intellectual merit" and wondered "what influence the randomized trial mind-set is having on genuine clinical research, the atrophy of which has been mourned."[1]

It is essential to recognize that the benefit of many therapeutic options cannot be measured via RCTs. As an example, prevention and treatment of peri-implantitis is a contemporary topic of interest that is difficult to study due to its multifactorial etiology. The perception has been that well-positioned implants perform better than poorly placed implants, but how is it possible to collect scientific evidence? Who is willing to suggest a well-designed, long-term RCT, according to the Consolidated Standards of Reporting Trials, to understand the cause of peri-implantitis? Would be it ethical to randomize patients and intentionally place implants erroneously? It is time we understand that in our profession it is not always possible to adopt the model of drug A versus drug B.

I do not, of course, propose a return to the past. My hope is that various scientific organizations bring together experts (with different interests so that potential bias can be reduced) to discuss the various treatment options considering SRs, but recognizing their limits. Let us not underestimate the value of groups of experts that help the clinician select the best available treatment options for their patients. It may not be perfect, but it is much better than a poorly conceived SR based on RCTs.

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References

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