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FEATURES SECTION

Letters to the Editor

Dear Sir

I am sure your timely editorial (*J Orthod* 2001; **28**: 313) on the merits of randomized controlled trials (RCTs) will be well received. I do think there are a couple of further points that deserve some attention. First, there *is* confusion over the meaning of the term 'evidence base', in that it seems to be applied solely to the outcome of published clinical research (however inadequately performed). But is true evidence, in terms of influencing clinical performance, just limited to published work alone? Most competent orthodontists are influenced by careful scrutiny of their own clinical results and those of their colleagues, with appropriate modifications in the light of their experience. In fact, this is the way that clinical progress tends to be made and innovations produced. In other words, personal clinical experience provides a major form of 'evidence' and should also be recognized, even though it is hard to categorize and fails to appear in hierarchical lists.

Secondly, not all of the practical problems associated with RCTs are perhaps so readily dismissed. Proffit[1] has pointed out that many important clinical questions do not lend themselves to clinical trial methodology and Lysle Johnston[2] has identified some specific problems, particularly when undertaking long-term investigations involving attempts at growth modification, including sample attrition and, ultimately, the obsolescence of the technique or original working hypothesis over time. There are also ethical risks, particularly involving the understandable need to limit the number of variables in a trial. This would include, for example, the failure to 'individualize' the design of a particular appliance under investigation (e.g. functional) for each patient in the group, depending on facial morphology and other criteria, and instead, providing identical appliances to all.

I do not disagree with your message, I would just add that an orthodontist's long-term clinical experience also legitimately deserves to be considered as evidence and that some RCTs, especially those of a long-term nature (including some recent examples) do seem to present real problems.

R. EDLER

References

1. Proffit WR. *Orthodontic Treatment Planning; Limitations, Controversies, and Special Problems in Contemporary Orthodontics*. Author 2000. 240–293.
2. Johnstone LE. Clinical studies in orthodontics: taking the long road to Scotland. In C. A. Trotman and J. A. McNamara Jr (Eds) *Orthodontic Treatment: outcome and effectiveness*, Cranio-facial Growth Series, Center for Growth and Development. Ann Arbor: University of Michigan, 1995: 21–41.