

EDITORIAL

Orphan research

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This is my last editorial for the Journal of Orthodontics as increasing University commitments have resulted in me having to relinquish the editorship of the Journal.

Over the last few years Jean Wright and I have enjoyed editing the Journal and I hope that we have managed to build on the work of the editorial teams that preceded us. During our stewardship we have seen a dramatic increase in the number of papers submitted with an additional increase in the quality of research. Perhaps, the biggest change has been an increase in the number of randomized controlled trials and prospective research projects submitted and published. I am sure that this reflects a change in research philosophy in orthodontics and that soon the retrospective investigation will be consigned to the same bin as the simple spring removable appliance!

The increase in the quality of research and therefore the usefulness of many papers has been encouraging. We should, however, consider whether this research has actually changed practice or treatment philosophy. Or have these studies made no difference and been classified as 'orphan research'.

I would like to consider some recent examples of how excellent research projects do not appear to have had an effect and perhaps consider why they may be considered to be 'orphans'. One good example is the effect of the large-scale randomized trials into the effectiveness of early orthodontic treatment for the correction of Class II malocclusion. Several studies have reported that early treatment does not lead to more effective later treatment or a change in the skeletal relationship, yet there is a reticence to accept these findings. For example, it has been suggested that there is limited change in skeletal pattern because the appliances were not trimmed correctly! From what I know about facial growth, I cannot see any scientific reason for this hypothesis! Furthermore, if we also look at the information provided by the American Association of Orthodontists, that is relevant to early Class II treatment, published on their website (www.braces.org)

“What are the benefits of early treatment?”

For those patients who have clear indications for early orthodontic intervention, early treatment presents an opportunity to:

- guide the growth of the jaw,
- regulate the width of the upper and lower dental arches (the arch-shaped jaw bone that supports the teeth),
- lower risk of trauma (accidents) to protruded upper incisors (front teeth),
- improve personal appearance and self-esteem,
- potentially simplify and/or shorten treatment time for later corrective orthodontics”

The only one of these benefits that is evidence based is the effect of early treatment on self-esteem. All the other benefits are unproven by the results of randomized controlled trials.

Is it purely an American problem, this reticence to adopt evidence based practice? On the BOS website, it clearly states that orthodontic treatment will result in increased resistance to dental disease. Again this statement is not supported by scientific evidence.

What is the solution to this problem? This must lie with more effective dissemination of research findings, aside from Journal publications. One method of achieving this is to increase the number of systematic reviews in orthodontics. Unfortunately, the problem may also arise from a misunderstanding or interpretation of the scientific literature. With an increase in the number of orthodontists who have carried out their own research as part of their training, this issue may also be solved. Nevertheless, the major barrier to change is perhaps unwillingness to accept that there is some science underpinning orthodontics and this should be digested, understood and implemented. It is time for a more open response to properly conducted studies that provide clinically important information.

I would like to end this editorial with thanks to the Editorial Board of the Journal, the British Orthodontic Society, the referees of papers and finally to all the people who have submitted papers to the Journal. I feel that without all their hard work the Journal would not be so successful.