

Organising our thoughts

Elizabeth Kay

Editor - Evidence-Based Dentistry

Sometimes, looking backwards helps us to look forward. This was advice, I believe, that Sir Winston Churchill gave to the United Kingdom's late Queen, early in her reign. Readers of *Evidence-Based Dentistry*, I would imagine, would hope that research published in the past has proven to enhance the well being of patients (as what is the point of research if it does not perform that function?). But has it? Well, early epidemiological studies demonstrated quite clearly that it was improved environmental conditions (clean water, better food, improved sanitation or in the case of oral health, fluoridated water, improved diet, and better oral cleanliness) that were the most important factors in improving the health statistics of a nation. Indeed, until the inter-war years, available therapies had very little effect on either death rates or ill health in the population. It was these observations that led us, quite rightly, to begin to see that we should assume treatments to be ineffective unless there was clear evidence to the contrary. And thus, the randomised controlled trial was born.

However, our efforts must not end once a treatment, or regime has been shown to be effective, via RCTs, and even after a systematic review of relevant RCTs. Further considerations need to be taken into account before stating unequivocally that a treatment is "worthwhile". These include, firstly, consideration of the cost of a treatment. This can be done either from the point of view of the patient and the effect of the treatment on his or her personal finances, or from the

point of view of the state or body which funds the treatment. Then, once the costs are known, we also must try to quantify the amount of benefit gained from undergoing the treatment. Doing so, is an extremely challenging quest, and yet there is still more we should do. Each treatment should be compared to other methods of managing the disease or illness, in order

to determine whether a particular treatment is the most efficient way to deal with a particular condition. Finally, all of these elements need to be weighed against each other, always remembering that resources might well be better used to better effect elsewhere, or for something else. In effect, the question as to whether the treatment is worthwhile must be addressed by asking whether the benefits clearly outweigh the costs. The answer to that question must be unequivocally 'yes' before a treatment should be recommended for adoption in practice. It is insufficient now to simply ask "Does this work?" and I would encourage contributors to this Journal, as well as its readers, to move towards including some sort of economic appraisal in their research, or their analysis of research. Whilst I would not, of course, suggest that studies should always include a full cost benefit analysis, I think that we would all derive tremendous benefit from



giving consideration to this methodology as a way of thinking about best clinical practice.

Economic analysis can never be, not should it ever be, the sole basis for decision making. Considerations of degrees of need, and fairness, and humanitarianism should always prevent us from taking a mechanistic approach to how people should be treated. Ultimately there is no simple basis underpinning each clinical decision. A clinician makes thousands of decisions each day, but the onus is on researchers to provide the keys to help them, by bringing all forms of analysis to bear on the decisions. Ultimately research methodologies, including economic analysis, systematic review and randomised controlled trials, should provide us with a useful way of organising our thoughts...but never a substitute for them.

Evidence-Based Dentistry (2022) **23**, 128.

<https://doi.org/10.1038/s41432-022-0842-x>

Correction to: Is the response rate of oral appliance therapy for subjects with and without position-dependent obstructive sleep apnoea different?

The original article can be found online at <https://doi.org/10.1038/s41432-022-0810-5>

Author's correction note:

Summary Review *Evid Based Dent* 2022; **23**: 124–125.

When initially published, the wrong source reference was included in the article. The source reference should have read:

Fransson A M C, Isacson G, Nohlert E. The outcome of oral appliance therapy on position-dependent obstructive sleep apnea: A multicenter randomized controlled trial. *Am J Orthod Dentofacial Orthop* 2022; **162**: 386–393.

The authors apologise for any inconvenience caused.