

**SCIENTIFIC
SECTION**

Commentaries on scientific paper published in this edition

Elective orthognathic treatment decision making: a survey of patient reasons and experiences

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The need to involve patients in the process of decision making is increasingly important. Issues include informed consent, but also the likely direct effect on treatment outcomes and patient satisfaction. This study is amongst the first to take the important step of starting to investigate factors associated with the patient's decision to have or not to have orthognathic treatment (OGT) and to see whether the process can be considered 'informed' decision making.

Using cross-sectional survey methods (questionnaires, semi-structured telephone interviews, etc.), patients were invited to take part who had either already undergone OGT or were considering having OGT. The patients were from four clinics providing OGT in one region of the north of England; ultimately, 44% of the 138 patients approached took part. This is a modest response rate, but is not so unusual for studies attempting to investigate such significant personal and psychological issues.

The findings highlight several important issues including differences between the perceptions of clinicians and those of patients. For example, whilst bite correction was a major consideration for patients having OGT, another was the desire was to look 'more normal' or, as one patient put it '...it would be nice to blend into the background a bit more.' Another highlights an important distinction: 'Now I look normal. That's quite important as it is not cosmetic surgery. As the aim was not to look beautiful just normal.' Perhaps the emotional demands of living with severe malocclusion have been underestimated. In addition, whilst many positive comments were made by patients about the information received, the study indicates where deficiencies may exist in the information provided (or its presentation) and, for example, the psychological support available.

As orthodontists it could be argued that we have focused (too much?) on direct occlusal outcomes than outcomes as assessed by (or including) the patient's perspective. Maybe we are unused to measuring things from the patients' point of view. Moreover, it is possible that the effects of living with severe malocclusion are underestimated and likewise the major benefits to patients that might accrue from OGT. This is in strange contrast to the situation for other patient types who also have severe malocclusions/facial impediment, e.g. clefts of the lip and palate.

This study has only briefly assessed the patient's perspective of treatment outcomes. However, it does point to where we should be looking and what we should be doing in order to maximize benefits to patients in a meaningful way, whilst at the same time explaining risks (also in a meaningful way). Furthermore, the authors note where and how future work should be improved and directed. Overall, whilst this study cannot (and does not intend) to address all such issues in all units, it nevertheless provides valuable new insight for many clinicians and provides a valuable benchmark from which future work can hopefully grow.

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Bonded versus banded first molar attachments: a randomized controlled clinical trial

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The use of fixed orthodontic appliances has been greatly facilitated by the development of improved archwire alloys and by the acid etch technique, which permits the direct bonding of attachments. In the early years of direct bonding the failure rate of molar attachments was much higher than for other teeth and many orthodontists preferred to place bands on molars. Although band placement is uncomfortable for the patient and time-consuming for the orthodontists, the technique is still widely used due to the lack of scientific clinical evidence from randomized controlled trials to show that bonded

molar attachments are as reliable as those incorporated onto bands.

This carefully designed and executed study was established to provide this evidence. One hundred and fifteen subjects were divided into two groups. The control group received molar bands and first molars in the experimental group were fitted with bonded attachments.

A total of 18.8% of bands and 33.7% of bonds failed over the 41 months maximum observation period. There was no difference in failure rates between maxillary and mandibular teeth, or between left and right sides, although attachment failure was influenced by social deprivation.

The conclusion of the study was that the failure rate for bonded molar tubes was almost double and the survival time only half that of molar bands. This rather

disappointing outcome led to rejection of the null hypothesis that there was no difference in the failure rates of bonded and banded molar attachments. The study will tend to confirm the reservations that many orthodontists still have regarding bonded molar attachments and persuade them to continue using molar bands until better results can be demonstrated for the bonding technique. However, anecdotal evidence suggests that molar bonding is gaining popularity and the authors end their well-balanced paper by encouraging further studies using new adhesive materials and attachment designs, which it is hoped will improve the retention of bonded molar attachments.

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