SCIENTIFIC SECTION

Commentaries on scientific papers published in this edition

A qualitative study to develop a tool to examine patients' perceptions of NHS orthodontic treatment

A. McNair, P. Gardiner, J. R. Sandy and A. C. Williams

We are all becoming aware of the need to take into account what the patient thinks and how things appear to patients. However, we are very limited if we have no means of assessing this adequately. This paper is a very useful step on the way to developing such a tool which, in this case, could be used to examine patients' perceptions of NHS treatment. It also has resonance for individuals well beyond the UK and the NHS. In the long run, one would hope that by knowing what patients see as important, this will enable clinicians to achieve improved patient satisfaction and perhaps even better outcomes.

The methods needed for data collection tend to be intensive and time consuming both for researchers and patients and it is a shame that despite the authors' best efforts, the sample size was ultimately rather small. This is partly explained by the poor recruitment rate (particularly in the hospitals that were included) but it is unclear what the ideal target size would have been in any case. However, the authors highlight the range of views and richness of the information achieved even when the numbers are low.

Patients who took part in this study came almost entirely from specialist practice in the end and were giving their views at debond. Such factors would be likely to introduce bias to an extent as acknowledged by the authors. However, the strength of this paper is the fact that the authors firstly saw the need to develop the tool, and secondly developed the tool themselves whilst acknowledging and indicating where improvements could take place in the future.

Friedy Luther
Leeds, UK

Psychological support for orthognathic patients – what do orthodontists want?

K. J. Juggins, C. Feinmann, J. Shute and S. J. Cunningham

Orthodontists have been undertaking joint planning clinics with their maxillofacial surgical colleagues for many years and our armamentarium has improved considerably over time. It is now possible to use sophisticated video-imaging packages to simulate the effects of potential surgical movements and to display these on screen to the patient as part of the treatment planning process. But should we be adopting routine referral for psychological assessment for these patients? Or do we as orthodontists feel that we already have the skills to detect those patients who may have a psychosocial status that could adversely affect the orthognathic outcome?

This paper reports on a UK questionnaire-based survey of consultant orthodontists' opinion with regard to two aspects of orthognathic patient management: (1) referral of orthognathic patients to a liaison psychiatrist or a psychologist and (2) the value of training orthodontic specialists in recognition of patients with psychological profiles that might affect orthognathic outcome.

It brings to light some interesting findings. Almost as many respondents (approximately 12%) felt that all orthognathic patients would benefit from a psychological/psychiatric referral, as were of the opinion (approximately 11%) that none of their orthognathic patients would benefit from such a referral. Twenty per cent of consultants were not certain but 40% of consultants referred 10% of their patients for a psychological assessment. The most common reason cited for referral was 'if the patient has a past/current psychiatric history'. It is likely, however, that this is under-reported. The majority of consultants were supportive of further training in patient psychological assessment/management. This, along with training for members of the mental health team, and appropriate funding allocation, would help to overcome the obstacles which were

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perceived as preventing orthodontists from referring orthognathic patients for such an assessment.

Bearing in mind the facial changes likely to be produced by this form of surgery and the impact on an individual's psychosocial status, it would seem wise that a pre-treatment psychological appraisal is built in routinely to our protocols for managing patients who are considering embarking on this form of treatment. This paper, however, rightly airs the resource implications that this will have in terms of available manpower and costs. We seek to provide the very best healthcare that contemporary orthodontic practice can deliver. In terms of audit and clinical governance issues related to orthognathic outcome, expansion of the team to include psychological or psychiatric liaison support personnel should enhance rather than detract from the whole patient's 'orthognathic' experience.

Declan Millett
Cork, Ireland

An *in-vitro* investigation into the use of a single component self-etching primer adhesive system for orthodontic bonding: a pilot study

K. House, A. J. Ireland and M. Sherriff

Self etch primers are becoming very popular – but how good are they really and how much credence can we put on laboratory studies? This *in vitro* study compares the force to debond; time, and site of bond failure of a single component self-etching primer (SEP) and adhesive system, Ideal 1 (GAC International Inc., USA) with the conventional acid etch and rinse regimen using 37% *o*-phosphoric acid solution and either Transbond^{TM} XT (3M Unitek) or Ideal 1 adhesive. The authors report that their results led them to undertake a clinical trial as there seemed to be little difference in force to debond using the SEP. However, they also found some indication that what might be gained in time at bond up, may also be lost at debond since there appeared to be a difference in the locus of bond failure. Not only that but, rather worryingly, they also report enamel fractures which would probably justify further study.

This study is important for more than one reason. Firstly, the authors are to be congratulated for actually following up their laboratory study with a clinical trial. Secondly, they have highlighted the difficulty of drawing conclusions from laboratory studies when so many of such studies fail to meet basic (but essential) statistical requirements. For example, the need for power calculations has been overlooked in relation to many laboratory studies as has the problem of multiple testing. The value of such studies has to be questioned when study design alone may have precluded a difference being found (should one exist) due to insufficient numbers in a sample. The study by House, Sherriff and Ireland is specifically a pilot study but provides useful data, information and food for thought for future studies to improve their study design and it is to be hoped that other investigators will take these advances on board. This is a most timely development given the need for an improved evidence-base and the need to ensure that studies involving patients, patient tissue or patient records, should stand maximum chance of actually being useful whether clinically or in the laboratory.

Friedy Luther
Leeds, UK