

Letters to the Editor

Dear Sir,

Re: B.O.S. Website

Recently, I had the opportunity to go through our web site at www.bos.org.uk. I would like to take this opportunity to facilitate the BOS team for their immense hard work and dedication in its creation. The sections on What is Orthodontics, Information for Young Patients, and especially Information for parents was excellent. It portrays to the non-dental professional in simple words the immense diversity and depth of the orthodontic field. The section on Orthodontic Words Glossary has simple definitive orthodontic vocabulary by which the patient can easily understand a conversation and case with the orthodontist.

I would, therefore, like to suggest some improvements in the web site. A section should be dedicated for Dental Schools offering orthodontic programmes with addresses and e-mail mentioned.

Furthermore, there should be an examination section for information leading to the M.Orth, R.C.S., M.D.O. R.C.P.S., F.D.S., M.R.D. R.C.S., and other related orthodontic examinations with current dates, fees, and contact addresses mentioned.

The website should attract a lot of dentists, and I fully recommend that a visit is inevitable!

DR HOSHANG RUMI SUKHIA

Department of Orthodontics & Oral Embryology,
School of Dental Medicine,
Karachi Medical & Dental College,
Gulzar Bldg, Abdullah Haroon Rd,
Saddar, Karachi 74400, Pakistan

Dear Sir,

I really must respond to Kevin O'Brien's 'Guest Editorial' (*BJO*, 24, 333-334, 1998). He states provocatively that 'the removable appliance has no place in contemporary orthodontic treatment and the evidence for this statement is overwhelming'. While there is certainly evidence to support what he says, it is important that this view is not propagated without some qualification.

There is no doubt that in mid-arch extraction cases, removable appliances often provide rather poor results and if Professor O'Brien had said 'removable appliances are less effective at aligning teeth' few would have disagreed, but there is more to orthodontics than that. Many would consider that in certain situations, removable appliances have advantages over fixed, such as adjusting apical base relationships, shifting centre lines and correcting canted arches. Also in some non-extraction cases, they can achieve excellent alignment within a few months, with just a small amount of expansion and an aligning wire hidden invisibly behind the incisors. This is not necessarily stable, but what is?

The problem with removable appliances is not that they do not work, but that they are often loose, worn intermittently or poorly adjusted. Most of them fall out if the labial

bow is pushed below the incisal edge and therefore achieve little. If they remain firm and are worn as instructed the teeth move very predictably. Unfortunately, wire bending skills are not given the priority they used to be and I see some appalling examples of appliance design.

Removable appliances are probably more technique sensitive and may fail for this reason alone, but when both systems were used on identical twins (J. R. C. Mew, unpublished study of 12 identical twins treated by different techniques) the dental alignment achieved by the removable appliances was comparable if not superior to the fixed results. Of more significance, the faces of those twins who received removable treatment were judged to be improved to a greater extent than the fixed.

The co-operation required for some types of removable appliances can only be achieved if clinicians have a good relationship with their patients. Unfortunately, high academic qualifications are not always linked to interpersonal skills, and medical schools have found that many of their top graduates want to be brain surgeons or professors rather than relate to patients. Fixed appliances may achieve predictable results without the need for co-operation, but this must not close our minds to the greater potential of removable appliances to achieve facial change.

The jury is still out.

JOHN MEW

The London School of Facial Orthotropics,
21 Foxley Lane, Purley,
Surrey CR2 2EH, UK

Dear Sir,

Re: UK Undergraduate Education

The recent guest editorial by Professor O'Brien was a typically thoughtful and thought-provoking paper on the future direction of undergraduate orthodontic clinical teaching. One of Professor O'Brien's central themes is that, to date, the undergraduate course has revolved around the extensive use of removable orthodontic appliances. In quoting the General Dental Council's recommendations for the undergraduate dental curriculum (1997), Professor O'Brien assumes that the continued emphasis on removable appliances is embraced into the sentence 'Students should carry out the continuing care of patients requiring simple appliance therapy.' We agree that there is much less need for removable appliance treatment in contemporary orthodontics and therefore 'simple appliance therapy' should in our view, include the supervised involvement in the treatment of a small number of cases where fixed appliances have been used. In this way the student will gain an understanding of both the indications for and limitations of various kinds of orthodontic appliance. This type of course can no longer be aimed at equipping students to practise orthodontics on qualification, but rather to enable them to advise patients and refer appropriately. We believe that such a course is also sufficient to encourage a number to

seek further training, either within formal postgraduate programmes or through one of the practitioner training schemes which now exist in almost all UK regions.

We entirely agree that the GDC recommendation that students should have the ability to 'carry out diagnostic procedures, formulate treatment plans and relate them to comprehensive patient care' is both unrealistic and unhelpful. At the present time we only have the resources and hours in the curriculum to teach 'orthodontic literacy' along the lines suggested by Professor O'Brien.

The problems that we experience in orthodontics in trying to make students fit to practice orthodontic care are no different to those encountered in any other speciality. In February 1994, the General Dental Council organized a most useful seminar entitled 'The continuum of Dental Education'. Here, it was proposed that there was a need to identify 'core' and options within the undergraduate curriculum and to accept that the newly-qualified graduate should practise with a limited licence. Sadly this debate did not proceed any further, but we believe it is important for the speciality to press for realistic objectives undergraduate curriculum. At the present time, the wide variation in the standard of knowledge provided by various courses in the United Kingdom, dictated almost exclusively by the availability of staff should be causing, the Council concern. At one extreme we see orthodontic education in orthodontics confined purely to a series of lectures and laboratory based demonstration whereas the other there are several comprehensive courses run along the lines of Professor O'Brien's ideal. It is therefore largely a matter of chance as to whether a patient receives informed advice and appropriate referral within a primary care setting as several recent studies have shown (Bowden *et al.*, 1996; Parfitt and Rock, 1996). This is neither satisfactory for the patient nor an effective use of available skilled manpower.

The only disagreement we have with Professor O'Brien is the suggestion that removable appliances have no place in contemporary orthodontic treatment ('Why teach an ineffective technique?'). Indeed, we cannot believe that Professor O'Brien really meant this, since in a later paragraph ('So what should we teach?') he includes the treatment of very simple cases with removable appliances as an appropriate inclusion for the undergraduate curriculum.

Contemporary orthodontics as practised by specialists, is principally fixed appliance-based, but specialists still use removable appliances routinely as retainers, and for over-bite reduction. Many also use twin blocks, nudgers to assist in distalisation of molars and even the occasional spring or screw appliances as an adjunct to fixed appliance treatment.

Musicians learn scales as a foundation for their practical skills. Dental students set up dentures in their training, but will rarely if ever do so again in their practising lifetime. In this age of the pre-torqued bracket we believe that undergraduates should still learn to bend wire by making clasps and springs and what better way to learn than by making removable appliances for their own mouths and then perhaps for a patient?

C. D. STEPHENS AND I. S. HATHORN
Division of Child Dental Health,
University of Bristol, Dental School,
Lower Maudlin Street,
Bristol BS1 2LY, UK

References

- Bowden, D., Pender, N., Husain, J., Morris, T. and Russel, J. (1996) An attempt to influence the referral of orthodontic patients to hospital orthodontic departments, *Health Trends*, 28, 67-70.
- Parfitt, A. A. and Rock, W. P. (1996) Orthodontic treatment planning by general dental practitioners, *British Journal of Orthodontics*, 23, 359-365.

Dear Sir,

In common with other university teachers I welcomed the Guest Editorial by Professor Kevin O'Brien, which discussed the appropriate content of an undergraduate orthodontic course for those who will be in general dental practice in the future (Guest Editorial, *BJO*, 24, 333-334, 1997).

He makes a number of suggestions for the curriculum which are based on an understanding of the profile of the provision of orthodontic services within the GDS, and the quality of result obtained using different appliance systems. They all make good sense. The prescription of a course of treatment that would be a compromise in the hands of a consultant, to a general dental practitioner with less skill and understanding than himself, cannot be justified on ethical or dental health grounds. It is disappointing that the most recent document from the General Dental Council on the undergraduate curriculum (The First Five years, General Dental Council, 1997) did not grasp the opportunity to couch its advice in terms of competency statements. Competency is, after all, what we consider we are assessing in the undergraduate during their professional examinations, it is the behaviour expected of the newly-qualified dentist.

There are several examples of competency statements already in existence, mainly from the North American continent, although Europe has also recently made an attempt at producing competency statements. The American Association of Dental Schools has produced less than 70 short statements of the competencies expected of a new graduate, Canada has produced just 49 such statements. Europe has some way to go before acquiring the commendable brevity of our North American colleagues. However, Europe has gone further and described the competencies expected of the specialist orthodontic practitioner.

The UTG should take the lead in this matter and initiate discussion within the profession, with a view to producing competency statements that are acceptable and realistic. Furthermore, they should also produce 'non-competency' statements. In the same way that undergraduates are not considered competent to provide certain advanced forms of treatment in the anaesthetic, surgical and restorative fields, so should we indicate the limits of competency of the new graduate in the field of orthodontics.

R. G. OLIVER
Department of Dental health and Development,
Dental School, Heath Park,
Cardiff CF4 4XY, UK

Dear Sir,

Re: A Critical Assessment of High-earning Orthodontists in the General Dental Services of England and Wales (1990–91)—Turbill, Richmond and Wright

I read with interest the article by Turbill *et al.* (*BJO*, 25, 47–54, 1998) concerning high earners in the GDS. The outcome was informative and perhaps at variance with what most observers might assume. One might have expected the treatment times to be shorter in the high-earner group, although overall times may mask infrequent appointments, something which would not have been known from the data available. A further point of interest might have been the extraction pattern predominating in the higher-earner group and one might assume that there would be more non-extraction treatments. This would considerably simplify and shorten treatment in many cases, although the stability of expanded arches is less certain in the absence of permanent retention.

Unfortunately, in their conclusions the authors confuse, as others have done before them, appliance type with the number of arches treated. In fact, their results show that dual arch fixed appliance treatments produce a considerably larger percentage reduction in PAR score than either single arch fixed appliance treatments or, what one assumes are, single arch removable appliance treatments, whereas the difference between the latter two is less marked. There is also a practical difference between the appliance which, on average, is most effective in reducing the PAR score and that which is most appropriate in the given clinical circumstances. One might infer that the authors are advocating the use dual arch fixed appliances in all cases.

Yours sincerely,

PROFESSOR W. J. S. KERR
University of Glasgow,
Glasgow, UK

Dear Sir,

We thank Professor Kerr for his interest in our article.

Whilst the main objective of the study was to address the concerns raised by the 'Schanschieff Report'¹, that there may be an element of poor and/or unnecessary treatment associated with high earning orthodontic practitioners, Professor Kerr raises some interesting side issues.

Regarding the treatment times, as Prof. Kerr implies, treatment duration is a complex issue, and so could not be considered in any depth in our paper. Certainly it may seem surprising that the High Earners' treatment times are the same as those of other practitioners, when their high incomes imply a higher turnover of patients. Conversely, their higher use of fixed appliances may arguably have been expected to increase their treatment times somewhat.

Perhaps the overall implication is that their higher turn-overs derive them from carrying a higher orthodontic caseload, *i.e.* seeing, and thus completing more cases per month, rather than having quicker turnover times per case.

Addressing Prof. Kerr's second point concerning number of arches treated (as opposed to the three broad appliance definitions we have used), two-arch treatment was in no way restricted to the 'Dual arch fixed' group. Perhaps surprisingly, both the treatments involving removable appliances only, and those involving use of a fixed appliance in one arch, included significant numbers of cases where both arches were treated. Number of arches treated did appear initially to have some association with size of Reduction in PAR score, but it was not significant once the co-variate, Starting PAR, was fitted to the model.

Cases receiving treatment in only one arch tended, as one may expect, to be those with lower Starting PAR scores, so the co-variate would have accounted for much of the variance initially associated with number of arches treated. Whereas one-arch cases, and others with lower initial PAR scores, would be expected to have lower Reductions in PAR, there is no reason to expect them to have mean Finish PAR scores or Percentage Reductions in score different to higher scoring malocclusions, if treatment plans were chosen and executed with similar aptitude.

We would certainly not wish to suggest that conventional removable appliances no longer have any place in orthodontic treatment. However, whilst there are certain tooth movements for which they are the appliance of choice, they are only capable of a limited range of movements compared to the fuller three-dimensional control available with fixed appliances. The cases for whom 'removable appliance only' regimes are the optimum, or even a good alternative choice would therefore be limited, and it is undesirable that such treatment regimes should be implemented unadvisedly, as Prof. Kerr and his co-workers have previously implied themselves².

We have in fact considered the above issues (treatment duration and factors associated with treatment outcome and appliance choice) in greater depth in three papers currently in submission.

Yours faithfully

STEPHEN RICHMOND
Cardiff
ELIZABETH A. TURBILL
Manchester

¹ D.H.S.S. (1986) Report of the Committee of Enquiry into Unnecessary Dental Treatment H.M.S.O., London.

² Kerr, W. J. S., Buchanan, I. B., McColl, J. H. (1993) Use of the PAR index in assessing the effectiveness of removable orthodontic appliances, *Brit J. Orthod* 20: 351–357.