Editorial

The Development of a Speciality Training Programme

'A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring:
There shallow draughts intoxicate the brain,
And drinking largely sobers us again.'

Alexander Pope. (1688–1744).

This issue of the British Journal of Orthodontics includes a paper which presents the views of orthodontic postgraduate students from around the United Kingdom on their training (Keith *et al.,* 1997). These views were obtained by a postal questionnaire survey which was sent out in March 1993 and, as such, may be a little out of date, since it must relate to those speciality trainees who started their courses between 1990 and 1992. Having said this, the findings are still of relevance and importance, in that they add to the body of evidence that there were, and indeed still are, pressures from 'below' for change to the orthodontic training programmes in the UK. These pressures for change are in addition to those from 'above', with regard to the recent respective reports of the Chief Medical and Dental Officers (Calman, 1993; Mouatt, 1995), the changing requirements of the Specialist Advisory Committee (SAC) and also the increasing involvement of the General Dental Council (GDC) in specialist training (D.o.H., 1996a & b). In the future the GDC will be the primary competent authority for the approval of speciality training and will need to confirm an overall recommended curriculum, as planned by the Universities and the SAC working in accord. Thus the pressures for change from 'above' are likely to be of increasing significance.

It might be suggested that the views of the postgraduate students should be the most potent force for change in the delivery of speciality training since they constitute the 'customers' and ones who, as may be seen in Keith et al's paper, are increasingly demanding in requirements for a course. After all, at the end of the day, perhaps it is: 'he who pays the piper that calls the tune'!. However, that is not the entire picture and the postgraduate course directors and co-ordinators have known for some time that more up to date training techniques needed to be incorporated into courses to replace the hangover of the old NHS clinical apprenticeship system of 'see one—do one'. The Erasmus Guidelines (Van der Linden, 1992) were a welcome early step along the road towards better structured training programmes in orthodontics in their attempt to address 'cross-border' training issues, and have provided a model for all dental specialities within the European Union. The recent expansion in the postgraduate student intakes to some United Kingdom courses and the attendant need to provide different scheduling regimes, for example to include full-time and part-time trainees, mean that courses are having to become more sophisticated and efficient in their mode of delivery of an education. This has led many postgraduate courses to adopt a modular structure which, in general, provides the flexibility to respond to the ever changing training needs of the speciality. An example of where the ability to rapidly adapt might be important in the future is the planned working relationship of orthodontic clinicians and auxiliaries, something that may need consideration in the programmes of the current cohort of trainees (Stephens, 1996).

However, perhaps we are getting ahead of ourselves! Let us first consider the basic requirements for orthodontic speciality training.

Before designing any training programme, one must decide the aims and objectives for that particular course. Any strategy for orthodontics must also fit with local curriculum planning for the other dental specialities. Thus the implications for, and relationships with, other local courses should also be considered, examples of which might be undergraduate and auxiliary training. It is vital that, in planning any course, consideration should be given to strategies already decided at local, national and international levels (even though these may on occasion be mutually exclusive!).

The next step is to develop an overall plan for the speciality training programme, based on the previous aims and objectives. Perhaps our speciality, in the past, has dwelt too long on the practical aspects of the clinical training and, as a result, the necessary background learning process has not been delivered as well as it should? This could well form the basis for many of the concerns of the trainees. It should be said at this stage that orthodontics is not alone amongst the medical specialities in having suffered from this approach, nor has it been a problem only in the UK, hence the need for documents like the 'Erasmus Guidelines'. However such a biased and inefficient approach to teaching the 'speciality skills' should now have been largely consigned to history and a more didactic approach will be increasingly required in all of the specialities of medicine and dentistry.

In orthodontics, although the students have concerns, which I hope they will continue to express in their usual robust fashion, it should be realised that, as a speciality, we are still in advance of many others with regard to our structured approach to teaching. Even though the training may have some imperfections, the final product, in the form of a trained clinician, can match the best standards attained anywhere in the world. This has become evident to the representatives of the Royal College of Surgeons when examining for the Membership in Orthodontics in Europe and beyond (see report in this issue).

There are also other good reasons for seeking a better

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structured and more efficient training in orthodontics. In the UK, where we have had a tradition of a largely hospital supported but GDS delivered service, it is becoming the accepted view that, in the future, it is likely that more of the service will be provided, as happens elsewhere in the European Union (EU), by practitioners with a specific training in orthodontics. As an inevitable consequence the emphasis of the courses will change, since we will be training a steadily increasing proportion of practitioners, over hospital trainees, towards the proposed Certificate of Completion of Specialist Training (CCST) (D.o.H., 1996a & b). Thus, with course length and the costs of the education becoming an ever more important factor in the equation, courses must be delivered effectively and to a sufficiently high a standard to meet the challenges inherent in a more restricted time span of 'formal' training, (and with increased student numbers), whilst aiming to maintain, but hopefully improve, standards.

So how are we going to meet these challenges and what is a good model for speciality training?

To answer these questions first one must consider the basic requirements of a training course. The learning process in dentistry can be simply described as being composed of:

- background applied *education*
- learning the *clinical craft* and acquisition of *clinical wisdom*.
- gaining, then maintaining *experience*.

It is in the supply of the *educational component* of training that most of the recent changes have occurred and generally has been the area about which our postgraduate students have voiced most concern in the recent past. Ideally this central component of speciality training should be led by appropriate university departments, since they have the basic broad seam of academic expertise to either provide, or easily access, the necessary breadth of teaching in, for example, the basic, applied and behavioural sciences. In general terms this part of the teaching should be a mix of both didactic and increasingly 'problem based' learning, with built in quality assessments of both staff and students, and with a formal method for frequent evaluation of progress included. For these, and other reasons, it probably needs to be modular in nature and one should recognise that, on occasion, some modules may have to be 'bought in' and led by specifically qualified individuals from outside of the speciality. Such a response to the needs of the postgraduate students is I believe entirely appropriate but, having accepted this, one must recognise that this type of structured (and purchased) teaching is expensive, hence the steady increase of bench-fees for courses, which in truth has little to do with the University M.Sc. fees, of which most departments receive very little.

The *craft component* of learning constitutes the traditional clinical apprenticeship. This area, one might tentatively suggest, has been taught to a much higher standard in the last few years, not just in the UK, but generally in the EU. In a Socrates sponsored educational project (OrthoEd—Rees, 1996) with partners in Ireland, Spain and Italy I have been particularly impressed by the consistent standards of clinical expertise to which the postgraduate students aspire. An important element to teaching the craft is 'case mix'. Exposure to more than one technique and more than one clinical teacher is generally thought to be an advantage to the trainee clinician and assists in the longer process of gaining *clinical wisdom*. In the UK this issue is often addressed through having the trainees 'outreach' to other units for much of their clinical training and this would appear to work successfully.

The final component of training is the gaining of *experience*, an area frequently mentioned but rarely considered in any depth. Perhaps much of the current Senior Registrar training programme is really an initial gaining of this experience, but in a supportive environment? An issue often forgotten when considering the length of speciality training is this period of supervised experience. However, one cannot put a time limit on the gaining of experience, it should be a continuing process after accreditation (or cost), and as such cannot always be supervised. Good orthodontists, to maintain their standards, should be able to learn from both their colleagues and, in particular, from their own experiences, from the time of qualification until the end of their working life. To achieve this aim they should be both self-disciplined and self-critical until the day they retire. To attain this discipline of continuing education one factor, that might be deemed to be an advantage to the clinician, is the ability to keep up to date with literature in the 'serious journals' and to be able to decide what is a 'good' paper and what is a 'poor' one. Unfortunately, and for a variety of reasons, not all papers published draw appropriate conclusions from the evidence presented! One must then be able to apply the knowledge gained to one's every day clinical practice.

Another part of the discipline is the ability to be self-critical and to engage regularly in a formal process of self-audit—this discipline needs to be taught early. As part of this, a clinician should be in the habit of presenting and comparing results together with his peers to maintain the process of continuing education and avoid stagnation.

To summarise, I believe that the clinical *craft component* of training has improved over the last decade and that the *educational component* will become increasingly well taught as a result of the more formalised approach being adopted to the planning of postgraduate course curricula. The improvements in these two areas will probably address most of the areas of discontent expressed in the paper of Keith et al. (1997). However to turn out better orthodontists in the long term it will be important also to tackle the problems associated with addressing the *experience component* of the learning process and thus give the graduates the gift of being able to apply meaningful self-criticism and the ability to acquire and learn from their experience for the rest of their working life.

MALCOLM JONES
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