

## Features Section

### Editorial

## Undergraduate Orthodontic Education in Europe

Whilst efforts are being made within Europe to bring about some convergence of educational programmes for orthodontics at postgraduate level, there has been little attention paid to a similar exercise at undergraduate level. The DentEd project, a thematic network supported by a grant from Directorate General XXII of the European Union, has begun to address this issue, not just for orthodontics, but for undergraduate education as a whole. DentEd aims to establish a network of dental schools in Europe and through a process of information exchange and international peer visitation bring about convergence of standards of dental education. DentEd is neither an accreditation system nor a precursor to one nor does it aim to impose a single curriculum or educational approach. Rather the emphasis is on self-reflection and exchange of ideas, innovations and best practices. Schools around Europe invite a team of visitors to spend 5 days on a site visit looking closely at all aspects of their programme; educational philosophies, curriculum, assessment methods, staffing, facilities and resources. Prior to the visit the host school is asked to produce a self-assessment document divided into 22 sections which is not only descriptive but also seeks to identify the school's own perception of its strengths, weaknesses and innovations in each section. During the visit there are useful exchanges of ideas with staff and students and following the visit a written report is produced based on the self-assessment document and agreed with the host school. To date 14 schools have been visited and a further 20 visits are planned this year. Some of this information is available on the DentEd web-site ([www.dented.org](http://www.dented.org)), and a summary of all the findings from all the schools that have been visited will be presented at the next meeting of the Association of Dental Education in Europe (ADEE) in Stockholm in September 2000.

This editorial provides an early insight into the varieties of approach to orthodontic undergraduate education and experience that exist around Europe. It is not comprehensive, as not all schools have been visited, and the programme of visits continues as we write. It does, however, put into context some of the more parochial issues within the UK.

There are 10 schools represented in this report, none of which are UK schools. The detail of information is incomplete for some schools. It is clear that all schools taught orthodontics at undergraduate level. Some had a two-part strategy, with growth and development being taught early (around Year 2 or 3), followed by variable theoretical and clinical experience during the last two or three years of the course.

In most cases, Orthodontics was a separate department, and taught in isolation. Two schools had an integrated approach with Paediatric Dentistry to care of the child. Both of these schools also utilised a Problem Based Learning

(PBL) pedagogical approach throughout the course. A third school (which did not have PBL as its main pedagogical approach) had a fully integrated curriculum, with orthodontics appearing in several different areas of the curriculum. Despite this, in each of the three schools above, there was both a Professor of Orthodontics and a Professor of Paediatric Dentistry.

The heavy information load on growth and development seems to be part of the dichotomy between the stomatological approach and the odontological approach to dental education that still exists within Europe. The stomatological approach sees dentistry as a sub-speciality of medicine, whereas the odontological approach considers dentistry as a separate course entirely, and is one familiar to all UK graduates.

The total hours of clinical experience are very variable, with a range from as little as 70 hours up to 450 hours. On clinics, two schools use a student mentoring system whereby senior students are assisted by junior students (these are also the two schools using a PBL approach). The DentEd visitors commented favourably on this approach. In seven schools, the students were able to treat orthodontic cases, however in one of these schools, longitudinal care of the patient was not practised by the student. In three schools the students were not allocated any orthodontic cases to 'treat' themselves. However, in one school they were able to observe at the chairside treatment provided by a member of staff, in a second they were expected to follow specific cases over a 2 year period, and in a third, their experience of practical orthodontics was restricted to treatment of orthodontic emergencies.

Several schools made extensive use of case records for building students' skills in diagnosis and treatment planning, and used student colleagues for practice in record collection.

It was occasionally difficult to determine exactly the detailed content of the courses, but, interestingly, only two schools seemed to give their students laboratory practical instruction on removable appliance construction. However, the precise definition of 'removable' appliances may differ from the commonly understood UK meaning of appliances for (principally) the upper arch, retained by wire clasps, and with springs or screws to move only small numbers of teeth at a time, and myofunctional appliances may also fall within this definition.

All the countries visited recognised Orthodontics as a postgraduate speciality, and seemed to accept that orthodontics at undergraduate level consisted mainly of an understanding of growth and development, recognition of malocclusion, basic treatment planning skills and understanding of the fundamentals of treatment provision and their duties for onward referral.

On the basis of this small cross section of European Undergraduate Orthodontic Training, there would not appear to be a great division regarding the perceived aims and objectives of an orthodontic course. The differences lie in the amount of time within the curriculum devoted to

the practical and theoretical components of the educational experience, and, to a lesser extent, the pedagogical approach.

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