Development of Dental Curriculum Guidance in the United Kingdom

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ABSTRACT

This paper descibes the process by which the United Kingdom General Dental Council developed the second edition of curriculum guidance for undergraduate Dental degree programmes entitled "The First Five Years, a frame work for Dental Education" . It explores the national and international drivers for change and how these influenced the the content of the document.The key change is the organisation into three domains: (i) What the Dentist is able to do (ii) How the Dentist appraoches Practice (iii) The Dentist as a Professional. There was increased emphasis on IT skills, law, ethics and professionalism, integration with the education of other members of the dental team, health and safety issues, outreach teaching, the need for continuing professional development, pain and anxiety control. It looks ahead to the chalenges posed by further international developments, in particular the Bologna declaration.

Key words: Dental education, Dental curriculum

BACKGROUND

In the United Kingdom (UK) the General Dental Council (GDC) has responsibility for ensuring the quality of undergraduate dental education. This body comprises dentists elected by from those on the Dental Register and lay individuals appointed through an independent Public Appoinments Commission , funded and responsible to the government but separate from it in its day to day activity. The main role of the GDC is protection of the public by the maintaining standards of dentistal care. Part of this role is the supervision of dental eduction. As well as periodic inspections of the Dental Schools and their examinations it issues guidance on the delivery and minimum content of the degrre programmes. Their guidance was first published as "The First Five Years" in 1997 and was always intended as a minimum requirement and schools were expected to provide" added value" .

In 2000 the General Dental Council intitiated the process of updating its curriculum guidance. Previous curriculum guidance had defined the core knowledge content but now there was a need to define core skills and behavioral objectives as well.

There had been high profile problems of professionalism in medicine. This resulted in a public perception that the "professions" were arrogant, paternalistic and more concerned about professional well being than that of the public that used their services. Typified by a common public perception that they were experiencing "I am a professional I know what is best for you" . There became a need to ensure that new dental graduates were aware of their ethical and professional responsibilities and to ensure that outdated attitudes were not maintained but were replaced by an understanding of the automomy of the patient as and individual and their rights to make their own, informed, choices even where these do not accord with the professional advice. The new framework needed to ensure that professional ethics and attitudes became part of the core activities within dental education

The GDC was aware the need to meet European Union (EU) regulations on levels of qualifications.This quality assurance has to be delivered to the level expected by the Dental Directives of the EU that allow mutual recognition of qualifications and free movement and practice of dental professionals within the EU.One of the main drivers of the EU is the removal of barriers to the free movement of trade, services and individuals. Harmonisation is a key word. Part of that harmonisation process had been the definintion of common levels of qualifications and the requirement on the individual countries to map their qualifications onto this framework.. In the UK the supervision and publicfunding of degree level educatio was then through the Higher and Further Education Funding Councils (HEFC). To meet this need HEFC set up working groups to define the levels for all the degrees awarded in the UK. These groups were charged with producing documents that showed how the degree programmes met the specific level descriptors. The dental working group consisted of representatives from each of the thirteen UK dental schools and a facilitator from HEFC. This group met in parrallel with the groups for medicine and vetinerary science with some sharing of information. Traditionally these degrees are called "Batchelor of ……" that is used for all first level degrees in the UK. However these professional degrees are 5 rather than 3 years long and the groups decided that they more closely equated to the "Master" degree level because of the necessity for graduates to be capable of complex problem solving in new aspects of their work. The resulting document[2] was published in 2000 and is available on the internet.[3] The content of this document indicated that the dental schools had developed their curricula beyond those of the first five years and were starting to define skill and behavioral aspects of their courses. In particular they were beginning to define levels expectation of acheivement. There was a realisation that the potential scope and complexity of dentistry had and was continuing to increase rapidly and that stu-

dents could not be exptected to have the same level of knowledge and attainment across all the potential course content. Within the UK there was an awareness of the movement in the United States to have curricula defined by competecy with domains, and various levels of supporting competenccies. This was not well understood but the deveolpments in medical education[4] were begining to feed into detal education.[5]

On graduation UK dental students usually progress into a year of supported dental practice, with government funded salaries, day release continuing education - Vocational Training.. Feed back from the trainers indicated concerns about the level of communication skillsand some core clinical abilities of some new graduates.

Although the FFY was only three years old the GDC's education Committee decided to start on the process of updating this document in 2000 so as to guide the evolution of the dental undergraduate curriculum into the start of the 21st century.

PRESENT STATUS

Process

The GDC set up a working party with representatives from each of the UK Dental Schools. Schools were invited to nominate individuals from whom the the group was chosen. The choice being made to ensure a coverage of subject areas as well as geography. At plenary meetings of the working party ideas for areas of change in the existing document were identified. Groups of three members of the working party were charged with drafting changes or new content. These were circulated and then discussed at further plenary sessions, refined and a draft discussion document produced. This was circulated widely, to the dental schools, to specialist societies and other professional organisations including those involved in Vocational Training. Responses to this consultation were received from both individual and groups. After consideration of these responses further draft was produced and another wide consultation carried out. Further refinements were made before a final and more limited consultation. Minor changes were then made before the final document[1] was produced and published in 2002.

The Key Changes

Early on the working party identified the need for increased emphasis on IT skills, law, ethics and professionalism, integration with the education of other members of the dental team, health and safety issues, outreach teaching, the need for continuing professional development, pain and anxiety control. Familiarity with Information technology is an increasing necessity in managing a dental business and in keeping up to date and finding current information in a rapidly changing world. The necessity of understanding and working within the ethical and professional climate in which we now work is a described above as one of the drivers for change. Increasingly dentists rely on skilled support from others, such as dental nurses, hygienists and technicians to deliver effectively patient care, learning to work as the head of this team requires the dental student to learn the skills of leadership and team working. The complexity of the dental work place is increasing with legal controls, on such as pressure vessels (autoclaves), disposal of clinical waste, including mercury contamination of wastewater from removing amalgam restorations. All adding to the learning load for students and their educators. Learning ideally occurs in the circumstances in which it will be subsequently used. Few students will continue to work in dental schools most will be working in primary care and the development of outreach teaching in primary care settings is intended to facilitate the transition from student to effective primary care dentist. The first edition of FFY recognized in its title that dental education was not complete on graduation from the undergraduate course but was only the first step on a lifetime journey. The recognition of the need to continually update and extend ones professional abilities and the acquisition of the learning skills that allow this are a necessity of undergraduate dental education. A recent change in UK legislation restricts the use of general anaesthesia to hospitals. It is no longer permissible to carry out general anaesthesia in dental practices. Thus over a very short period there has been a huge reduction in dental care carried out under general anaesthesia with a resulting increased need for alternative methods of pain and anxiety control and hence the need to emphasize this in the undergraduate course.

The dental profession and many dental educators were not prepared to move to an entirely competency described curriculum. So the document describes in the familiar listing of subject areas the scope and arrangements for delivery of the curriculum. The working party developed descriptors for the different depths of learning outcome required of dental students and these are in table 1:

This enabled the expectations of student acheivements by graduation to be explained in terms that their future employers would understand. The, in my view, most useful section to the dental educator was the appendix that listed the dental domains and sub domains that for the first time explicitly took UK dental education beyond the what the graduating dentist should be able to do into how he should do it and the professional context in which it is done. These are shown in table 2. Emphasis was also placed on vertical and horizontal integrationof the curriculum and the need for early introduction to the clinical environment.

The Future

These last changes bring difficulties in mobilitiy of students between institutions. It is no longer possible to devide the dental curriculum into stand alone modules that could be recognisable subsitutes for similar modules in other institutions.

The EU Bologna Declaration 1999 was signed by higher education (HE) Ministers from 29 European nations. Its aim is to create a 'European Higher Education Area' by 2010. To achieve this it started the "Bologna Process" . The main purpose of the Bologna Process is to enhance the employability and mobility of European citizens, and to increase the international competitiveness of European Higher Education. The Declaration has six key objectives:

· Adoption of a system of easily readable and com-

parable degrees and the implementation of the Diploma Supplement in order to promote EU citizen employability and the international competitiveness of European higher education.
- Adoption of a system of two main cycles of undergraduate and graduate degrees
- Establishment of a system of credits to means of promoting student mobility
- Promotion of mobility for students and teachers.
- Promotion of European co-operation in quality assurance
- Promotion of the necessary European dimensions particularly for curricular development and inter-institutional co-operation.

Three more objectives were added at a meeting of European ministers in Prague in May 2001. These are:
- Acknowledgement of Life Long Learning
- Encourage the involvement in the development of the European Higher Education Area (EHEA)
- Promotion of the EHEA to students within Europe and elsewhere.

Copies of the declarations and all the Bologna related texts are available from the official Website of the Berlin 2003 Conference.[6]

For dental education much of the work to meet these objectives has been carried out by DENTED - the Thematic Network Project Achieving Convergence in Standards of Output of European Dental Education.. This is funded by the EU but has yet to make progress on the issue of a system of credits that would allow students to study part of their degree in one dental school and other parts in another school potentially in another country. Limited student exchanges with credit recogntion occur on a one to one inter institutional basis through "Erasmus" but the process is far from the simplicity envisaged by the ministers of education.

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Table 1.
Descriptors for the different depths of learning outcome.

Be competent at:	Students should have a sound theoretical knowledge and understanding of the subject together with an adequate clinical experience to be able to resolve clinical problems encountered, independently, or without assistance.
Have knowledge of:	Students should have a sound theoretical knowledge of the subject, but need have only a limited clinical/practical experience.
Be familiar with:	Students should have a basic understanding of the subject, but need not have direct clinical experience or be expected to carry out procedures independently.

Table 2. Domains and sub-domains.

Domain	Sub Domains
What the Dentist is able to do	Clinical Skills
	Practical Procedures
	Patient Investigation
	Patient Management
	Health Promotion and Disease Prevention
How the Dentist appraoches Practice	Communication
	Data & Information Handling Skills
	Understanding of Basic & Clinical Sciences and Underlying Principles
	Appropriate Attitudes, Ethical Understanding and Legal Responsibilities
	Appropriate Decision Making, Clinical Reasoning and Judgment
The Dentist as a Professional.	Professional Development
	Personal Development