Dental therapy in the United Kingdom: part 1. Developments in therapists' training and role

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VERIFIABLE CPD PAPER

IN BRIEF

- This paper outlines the history and development of dental therapy within the UK.
- It describes the recent expansion in the number of dental therapy training places and details of dental therapy schools.
- It explores the clinical remit of dental therapists, the expanded range of clinical settings in which they currently work and their future importance in providing added value to the dental team.

The number of students entering training for dental therapy has been increasing rapidly over the last few years. In practice, the scope of their work has increased, both in terms of permitted duties and their range of clinical settings. The possibilities for dental practitioners to work with therapists is therefore increasing, so it is important for them to be clear about therapists' potential capacity to provide added value to the dental team. This paper, which is the first of four covering aspects of dental therapy in the UK, traces the history of dental therapy together with the development of therapists' training opportunities and emerging competencies, up to the present. The subsequent three papers will describe aspects of a survey of dental therapists undertaken in late 2006.

THE EARLY YEARS

There are now increasing numbers of students entering training for dental therapy in the UK. Dental therapists could be considered by the general public and dental profession as a new additional team member since their introduction to general

dental practice in 2002.¹ In fact historical evidence reveals that there were 'dental dressers' performing equivalent roles almost a century ago.

As early as 1909, local authorities, including those in Bradford, Cambridge, Chester, Coventry, Sheffield and Norwich, had already started to lay the foundations for a School Dental Service.² However, during the First World War it was difficult to recruit dentists, and there were high levels of dental caries in children requiring attention.³⁻⁵ Therefore, some authorities experimented with the introduction of 'dental dressers'. These were women who worked with a dentist and were trained to clean, fill and extract the teeth of school children under immediate supervision of a dentist.^{2,5} By 1923, Derbyshire, Sheffield and Shropshire Education Authorities were employing dressers. In Derbyshire, there were two dressers working with one dentist. On this basis, it was argued that dressers cost less to train (and employ), and that such teams substantially improved the dentist's output.⁵

The introduction of dressers was met with substantial opposition from the dental profession.⁴ In 1923 the Ministry of Health ordered that the Derbyshire scheme be abolished, under the powers of the 1921 Dentist Act.⁵ In 1932 there was a further amendment which restricted the scope of the dressers' work to scaling and polishing,⁵ although they were not completely abolished until 1942.²

By the end of the Second World War, the government again recognised the significant amount of oral disease in the country. While the School Dental Service had been largely neglected during the inter-war years,⁴ the future of this service was threatened in 1948 with the introduction of the new National Health Service, when large numbers of school dentists, with the prospect of better pay, moved into general practice.⁵ With the possibility of disintegration of the School Dental Service, the government looked to New Zealand for inspiration.

NEW ZEALAND DENTAL NURSES

New Zealand had been facing a similar problem to that of the UK and had developed a model similar to 'dental dressers'. In 1921 the first School for Dental Nurses had opened in Wellington.⁵ Women were trained to carry out a range of dental duties including diagnosis of dental disease and treatment planning for deciduous teeth. Some children who were seen regularly by New Zealand dental nurses might not see a dentist until the age of 13. By the 1950s two more schools had opened in Auckland and Christchurch. This model has been subsequently used and developed by Australia, Canada, Malaysia, Sri Lanka, The Netherlands and many more countries worldwide.

A government group was sent out from the UK to assess the New Zealand model.

DENTAL THERAPY IN THE UNITED KINGDOM

1. Development in therapists' training and role
2. A survey of reported working practices
3. Financial aspects of current working practices
4. Teamwork – is it working for dental therapists?

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In 1951, they reported back to the effect that the nurses provided a high standard of treatment. There was a significant degree of controversy and opposition from dentists to the idea of introducing this type of clinical worker into the UK but the Dentists Bill was finally passed in 1957. The newly created General Dental Council (GDC) was then instructed to carry out an experimental scheme and it was the GDC itself that was to set the conditions under which the newly emerging 'dental auxiliaries' would work.

THE NEW CROSS ERA

The new dental auxiliaries (as they were originally known) would only be allowed to work in the public services (for example, salaried – hospital and school dental service) but not in general practice. They would work to a prescription from a dentist and would not be permitted to discharge their patient without a final inspection from the dentist.⁵ They were allowed to carry out 'simple fillings' and extraction of deciduous teeth. Compared to the New Zealand nurses, who additionally performed independent diagnosis and treatment planning for young children, their clinical practice was extremely restricted.

In 1959 the first school for dental auxiliaries was opened at New Cross Hospital in South London.⁵ The school admitted 60 female students per year for a two-year course. Entry requirements were five GCEs. Students were chosen from across the UK in the expectation that they would return to their home towns on completion of their training. However, after two years the government realised this was not happening and made students, parents and guardians sign to say they would be prepared to work anywhere in the UK as a condition of acceptance on the course. However, this was impossible to enforce. By 1965 it was considered that the new dental auxiliary was making a valuable contribution to the dental service⁵ and the Ancillary Dental Workers Regulation established them as part of the dental team.

AN ERA OF CHANGE: 1980s ONWARDS

New Cross continued to train approximately 60 students per year. In 1979 the Royal Commission on the NHS⁶ recommended that there should be an expansion

of training facilities for dental therapists and the establishment of two new schools. The Nuffield Foundation Inquiry into dental education in 1980⁷ was also positive and anticipated changes in duties to allow therapists to become even more useful members of the dental team.

Despite these favourable reviews, in 1981 the Report of the Dental Strategy Review Group⁸ recommended the closure of New Cross along with a 10% reduction in dental undergraduate places nationwide. In 1983 New Cross closed.

However, the training of a small number of dental therapists continued at the Royal London Hospital. A combined course for eight students offered dual qualification as a dental therapist and dental hygienist (the current roles of these groups can be seen in Table 1). Unlike New Cross, where students were trained in isolation from the rest of the dental team, students were now integrated with undergraduate dental students for part of their two-year course.

Unfortunately during the 1980s employment opportunities for dental therapists were limited as they were restricted to employment within hospitals and community placements and few positions were available. However, there was plenty of demand for dental hygienists, who could also work in general dental practice. A number of 'New Cross' therapists therefore took the opportunity of attending shortened courses to obtain the hygienist qualification. This gave them the option of working in general practice as a hygienist where potential earnings were far greater.

In 1993, The Nuffield Report into the Education and Training of Dental Auxiliaries⁵ was published. The report made significant recommendations for all clinical dental auxiliaries, including dental therapists, dental hygienists and dental surgery assistants, later called professionals complimentary to dentistry (PCDs) and more recently, dental care professionals (DCPs). With regard to dental therapists, the report recommended that they expand their remit and, most importantly, that the restrictions regarding workplace should be lifted and therapists permitted to work in general dental practice in the future. In 1998, the GDC Dental Auxiliary Review Group⁹ published their report, which further endorsed these recommendations.

Table 1 Dental therapists' (*hygienist) permitted duties currently included in the curriculum 2004¹⁰

*Record and monitor disease
*Plan the delivery of treatment
*Treat adults and children
*Give oral hygiene instruction, diet advice and smoking cessation
*Carry out supragingival and subgingival scaling
*Root surface debridement
*Fluoride application and anti microbial therapy
*Fissure sealants
*Take, process and interpret radiographs
*Give local infiltration and Inferior Dental Block anaesthesia
*Refer patients to other healthcare professionals
*Take impressions
*Place Rubber dam
*Recement crowns with temporary dressing if removed during treatment
Restorations in permanent dentition without pulpal involvement
Restorations in deciduous dentition
Pulpotomies on deciduous dentition
Placement of preformed stainless steel crowns on deciduous dentition
Extraction of deciduous teeth under local anaesthetic
Additional skills which dental therapists (*hygienists) could develop during their careers have been set out by the GDC within 'Scope of practice'²⁵
*Tooth whitening
*Prescribe radiographs
*Administer inhalation sedation
*Removal of sutures
Vary the detail, but not the direction of a treatment plan

EXPANSION OF TRAINING

The Royal London Hospital continued to train eight students per year as dually qualified dental therapists and dental hygienists. Expansion in therapy training began in 1996 when Cardiff Dental Hospital started a dental therapy course funded by the Welsh Office. Qualified dental nurses working within the community dental services were recruited for the first course. They were funded throughout the course by their respective community dental services and on qualification returned to work there. The following year, the

Table 2 Details of current UK dental therapy schools (dual qualification) August 2007

School	Course started	Award	Entry qualifications	Length of course	Tuition fees	Financial support	Students per year
Birmingham	2004	BSc in Dental Hygiene and Dental Therapy	3 'A' levels grades BBC 2 'A' levels + qualified dental nurse	3 years	Nil	NHS bursary	25
Bristol	2007	Diploma in Dental Hygiene and Dental Therapy	2 'A' levels Qualified dental nurse + Biology 'A' level Qualified dental hygienist	27 months	Nil	NHS bursary	12
	2006	Diploma in Dental Therapy (one off course)		1 year full time	Nil	Bursary	6
Cardiff	1996	Diploma in Dental Therapy	Qualified dental nurse or 2 'A' levels	2 years	Nil	NHS bursary	9
Dundee	2004	BSc in Oral Health Sciences	UCAS 240 points	3 years	Nil	Grant	10
Edinburgh School of Hygiene Therapy	2006	Diploma in Dental Hygiene and Dental Therapy	3 Scottish Highers + 5 standards		Nil	Grant	4 (increasing to 6)
Edinburgh University	2005-2007	Diploma in Dental Therapy	Qualified dental hygienist	3 days a week for 36 weeks	Nil	No	4 (increasing to 10)
Glasgow	2003	Diploma in Dental Hygiene and Dental Therapy	3 Scottish Highers + 5 standards	27 months	Nil	Grant	10
Leeds	2001	Graduate Diploma in Dental Hygiene and Dental Therapy	Biology 'A' level + qualified dental nurse 2 'A' levels, biology + 1 other Access course	27 months	Nil	NHS bursary	24
Liverpool (outreach sites: Blackburn Crewe Lancaster)	2004	Combined Dental Hygiene and Dental Therapy	2 'A' levels, 1 science related Qualified dental nurse	27 months	Nil	NHS bursary	24
London: Eastman Dental Hospital UCLH Foundation Trust	1998	Diploma in Dental Hygiene and Dental Therapy	2 'A' levels Qualified dental nurse	27 months	Nil	NHS bursary	10
London: Guys, Kings & St Thomas'	2004	Diploma in Dental Hygiene and Dental Therapy	Qualified dental nurse 2 'A' levels grade C or above	27 months	Nil (no longer university fees)	NHS bursary	40
London: Barts and the London	1983	Diploma in Dental Hygiene and Dental Therapy	Qualified dental nurse + AS level biology or human biology 2 'A' levels 1 biology	27 months	Nil	NHS bursary	12
Manchester	2003	BSc in Oral Health Sciences	UCAS entry 2 'A' levels (from 2008 3 'A' levels)	3 years	Standard tuition fees	Student loan	12
Greater Manchester, Salford	2005	Diploma in Dental Hygiene and Diploma in Dental Therapy	Qualified dental nurse + 1 post qualification 2 'A' levels, 1 science-based	27 months	Nil	NHS bursary	10
Newcastle	2006	Diploma in Dental Hygiene and Dental Therapy	Biology 'A' level + qualified dental nurse 2 'A' levels, biology + 1 other	27 months	Nil	NHS bursary	10
Portsmouth	2004	BSc in Dental Hygiene and Dental Therapy	UCAS 240 points	3 years	Nil	NHS bursary	24
Sheffield	1996	Diploma in Dental Hygiene and Dental Therapy	Qualified dental nurse + 2 post qualifications 2 'A' levels, 1 science or health related	27 months	Nil	NHS bursary	30

NB: All schools require minimum 5 GCSEs grade C and above for admission; most schools accept Access to Higher Education Qualification
Scottish Rural School of Oral Health Science

intake was opened up to students from the rest of the UK.

The Charles Clifford Dental Hospital, Sheffield, also started a therapy course in 1996 offering a combined course similar to that operating at the Royal London Hospital. Recruitment opportunities for dental therapy posts were relatively few and so by offering the dual qualification, it provided the potential for the graduates to work in general practice as hygienists. Dental hygienists also had job opportunities overseas. Unlike dental therapists, dental hygienist posts do exist in some European countries and this gave them the opportunity to work, for instance, within the EU. UK dental therapists have very limited opportunities to work elsewhere. Due to the differences in their duties, they may require additional assessment before working abroad.

Since 1996, the remaining dental hygiene schools have gradually begun to offer dental therapy as a combined course or as a separate qualification (Table 2). Liverpool University was the first to introduce a part-time course for dental hygienists to train as dental therapists. They recruited eight students per year for a two-year course. Running a part-time course enabled the hygienists to stay in employment while completing their training. All clinical work was carried out in outreach placements in community clinics.

A major change for the training establishments occurred around this time. The GDC had stepped down as the awarding body and the schools anticipated that the universities might take on this role. Many therapy schools have now made a successful move to a full university course. The GDC continues to ensure that educational providers meet the high standards required and to maintain a register for dental therapists as part of the Dental Care Professional (DCP) Register.

Two courses in Liverpool and Greater Manchester started training dental therapists away from dental schools. The unique feature of these courses is that all clinical training takes place in outreach placements, within community clinics and general dental practices.

Degree courses

In September 2000, the first degree course was introduced at the University of

Manchester. This is a three-year course leading to a BSc in Oral Health Science for the successful candidates. A degree is awarded an additional 40 academic credits, making a total of 360 credits, compared to the graduate diploma which has 320. However, the GDC ensures all students reach the same required clinical standard on graduation. Since then a number of schools have converted to a degree qualification.

CLINICAL ROLE OF A DENTAL THERAPIST

The GDC recommended that therapists be permitted to work in all sectors of dentistry, including general dental practice, in 1999. This was approved from 1 July 2002. At the same time, extended duties were added to their potential remit.

In 2004 the GDC published a curricula framework for the training of DCPs.¹⁰ At present all schools are regularly inspected by the GDC as part of quality assurance, ensuring they are all teaching to the published guidelines. Therefore, newly qualifying students will only be competent in the procedures as stated in the curricula (Table 1), previously termed 'permitted duties'.

The latest developments to impact on dental therapist working practice occurred in July 2006. The new GDC standards, 'Principals of dental team working' state that DCPs can carry out treatment if they are sure they are trained and competent to do it. Hence, therapists are no longer required to work to a specific remit, but as long as they are trained and competent, they can carry out any specific procedure. This has caused a lot of confusion among the dental profession as a whole and more clarity is needed regarding the context of any extra training to develop additional competencies.¹¹ In response to these concerns the GDC has launched a 'scope of practice consultation'.¹² The focus of the consultation is to protect the best interests of patients by developing greater clarity about the skills expected of a registrant on qualification, those they can develop, and those that should be reserved for other groups.

Developing role in primary dental care

As part of the government initiative to improve access to NHS care, a number of therapists were employed within personal

dental service (PDS) schemes.¹³⁻¹⁵ The PDS was initiated to test an alternative delivery system of dental services, including the employment of dental therapists within dental practices.¹⁶ The PDS allowed therapists to work alongside general dental practitioners. It is argued that therapists working in NHS practice in an area of social deprivation with unmet need and lower levels of dental manpower can be a powerful boost to team working.¹⁷ While this vision may be limited by the numbers of therapists available, the situation is improving as more therapists are graduating. Since the changes in 2006, dental therapists can also own practices and employ other dental professionals.

A published review of four PDS pilots in the North West of England representing a range of practice profiles found that none of the practices were able to cover the cost of the salary of the dental therapist, dental nurse and practice overheads on the basis of the then current general dental service (GDS) fee scale.¹⁶ This calculation could not take account of the longer-term potential health gain associated with the preventive role of the therapist or the increased productivity of the dental team as dentists' freed capacity may be used to complete more complex clinical procedures with potential increased remunerative capability. However, the payment arrangements in NHS general dental practice have now changed.

A new dental contract was introduced in the NHS in England and Wales in April 2006.¹⁸ This contract is monitored on targets for units of dental activity (UDAs). 'Providers' (for example, the dental practice contract holders) are set annual targets and this has become the new contract currency. This arrangement has presented some opportunities for therapists who are in a position to generate UDAs, while hygienists are less able to do so. For example, if a dentist examines a patient and prescribes treatment, one UDA will have been earned by the dentist. If that patient also requires 'Band 2 treatment' that will usually fall within the remit of the therapist. As a result, three UDAs will have been earned in total, two by the therapist and one by the dentist. Another factor to consider is that of increased productivity. Once the patient has been referred to the therapist for routine care, the dentist is available to

spend time doing more complex treatment and/or seeing private patients, while the therapist is working. This issue will also apply to hygienists, although the scope for their treatment will be more limited.

If the dental therapist expands the practice capacity for NHS treatment and prevention beyond that of the existing dentists, growth money would need to be allowed for in the contract.¹⁶ A therapist may, however, replace a dentist as long as there is sufficient capacity within the practice to complete the treatment required that is beyond the competence of the therapist and so be funded from within the contract value. There is insufficient evidence to determine whether or not a therapist working in practice within the new contract would be self-financing, but they could provide the opportunity for the dental practitioner to spend time treating other patients on a private basis.¹⁹

As long ago as 1982, the majority of dental practitioners surveyed could perceive themselves as head of a dental team delegating simple tasks.²⁰ In effect, the role is more complex than this, including being a team co-ordinator and primary decision maker.²¹ The supervising dentist clearly needs to have teaching and management skills, in order to delegate an appropriate range of tasks for therapists to be effective and efficient members of the dental team.²²

THE FUTURE

There has been a significant increase in the number of qualified dental therapists entering the profession each year. In 1985 there were eight students qualifying per year and now there are approximately 240. Most of the dental hygiene schools are now offering the combined course, providing greater potential flexibility as a hygienist and as a therapist. This increased capacity in the dental workforce offers the potential for improved scope and output

of NHS care, including preventive care. As with dental hygienists, larger group practices may be best placed to employ a therapist.¹⁷

The expansion in dental therapy training opportunities has now been followed by the recent increases in dental undergraduate places. It is therefore crucial that all this training investment is well managed through workforce planning in the longer term and can enable provision of dental services according to the diversity of need. In addition to the existing courses, a new hygiene therapy course commenced in Scotland over two sites (Dumfries and Inverness) in September 2008. The current need for therapists to work to a dentist's treatment plan requires dentists' awareness and acceptance of the potential of that role.^{11,23} The clinical responsibilities of the dentist *vis-à-vis* that of the therapist must be clear and complementary and will benefit from a fusion of parallel and integrated training opportunities, especially where there are learning opportunities under the same roof. In the future, the dentist undergraduate workforce could expect to build up leadership, management and supervisory talents as team co-ordinators, as well as developing postgraduate specialist skills. The vision of a dental team where each member has 'mutual respect, trust and understanding of their respective roles and a genuine desire to embrace fully the science and art of teamwork'²⁴ is the ultimate goal.

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