IN BRIEF

- Predicting the numbers of dental personnel required to provide dental services within the United Kingdom is an important but difficult task. The existence of vacant positions is a possible indication of a shortfall in these numbers.
- Approximately 18% of dental practitioners nationally report vacant posts for dental practitioners within their practice or other place of work, 17% reported vacant posts for dental nurses and 12% reported vacant posts for dental hygienists.
- The employment of professionals complementary to dentistry is one alternative to filling a vacant post for a dental practitioner. Around half of general practices express an interest in employing dental therapists should legislation be introduced to permit this.

Vacant posts reported in dental practice: implications for human resource planning

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Objectives To describe the proportion of dental practitioners who report vacancies within their dental practice for the following: dental surgeons, dental hygienists, dental nurses and dental receptionists. To determine the proportion of dental practitioners working in general dental practice who would consider employing a dental therapist.

Method Analysis of data from the *British Dental Association Omnibus Survey 2000*. The sample comprised 992 qualified dentists in all fields of practice.

Findings The most commonly reported vacancies were for dental surgeons (18% of practitioners reported vacancies), dental nurses (17%) and dental hygienists (12%). Approximately 46% of general dental practitioners reported that they would employ a dental therapist if legislation permitted. The main reason for not employing a dental therapist was insufficient space in the dental practice.

Conclusions A large number of vacancies exist for dental surgeons, dental nurses and dental hygienists in the United Kingdom. Around half of dental practices express an interest in employing dental therapists should legislation permit.

There has been much recent interest in the planning of human resource requirements for dental services. This has arisen partly as a result of the changing demographic constitution and working practices of dental practitioners in the UK,^{1,2} as well as through discussion of the expanded role of professions complementary to dentistry.^{3,4} While it is difficult to predict with any degree of accuracy the numbers of dental personnel required to provide dental services throughout the United Kingdom, the presence of unfilled vacancies has been taken as evidence of a shortfall in available personnel. Chaudhry and Scully⁵ reviewed advertisements for general dental practitioners in the pages of the *British Dental Journal* and concluded that, 'There are clearly now large numbers of vacancies for work in UK general dental practice'. (Chaudhry and Scully p 433).

Dental practitioners work as part of a team of professionals which seeks to provide high quality oral healthcare to the popu-

lation. Each team is composed of individuals from different professional groups with particular skills, including reception staff, dental nursing staff, dental practitioners and dental hygienists. The smooth running of the team can be hampered by the absence of one member, or by high rates of turnover within team members. Vacancies among professions at the level of the general practice are related to the availability of suitable individuals nationally. A shortfall in the number of trained dental practitioners will result in vacancies among this group in general practices nationally. Shortfalls in the availability of particular groups of dental personnel have implications both nationally for the provision of efficient oral health care services, and locally for the smooth running of the dental practice. One aim of the present study was to examine the proportion of dental practitioners who reported vacancies within their dental practice for the following: dental surgeons, dental hygienists, dental nurses and dental receptionists. There has been no previously published research examining vacancies for dental personnel other than dental surgeons.

One possible approach to overcoming the problem of unfilled positions for dental surgeons is to review the skill mix requirement of the practice and to employ staff such as dental therapists to perform some of the duties (for example simple fillings). Currently the employment of dental therapists in general dental practice is only possible as part of the personal dental services scheme. However should the legislation permit the employment of dental therapists, some of the pressures faced by general practices with unfilled vacancies for dental surgeons could be alleviated. The second aim of this study was to determine the proportion of dental practitioners working in general dental practice who would consider employing a dental therapist, and to analyse perceived barriers to the employment of dental therapists in general practice.

METHOD

The data for this study were collected as part of the *British Dental Association Omnibus Survey* conducted between September and December 2000. This survey is conducted by the BDA on behalf of researchers from a range of settings. The sample consisted of 1500 qualified dentists in all fields of practice, excluding students, retired practitioners and practitioners working overseas. Two reminder circulars were sent, and the final number of responses was 992 (66%). The composition of the respondents is representative of the BDA's membership.

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Respondents were asked the following question concerning vacancies in their practice (or work setting):

In the place where you work (your practice, NHS Trust or other place of work) which personnel do you currently have unfilled vacancies for? Please indicate all that apply.

- Dental surgeon
- Dental therapist
- Dental hygienist
- Dental nurse
- Dental receptionist

This question only applies to those working in general practice. If legislation permitted, would you employ a dental therapist in your practice?

Yes No

If no, why (tick one):

- Unclear of the nature of the duties therapists could perform
- Would not want the additional responsibility
- No room in the practice
- Not enough work to warrant the appointment
- A hygienist working in the practice covers some of those duties
- I don't feel it would be cost-effective
- Other, please state

In addition respondents indicated their gender, geographic location (North or South of a Bristol-Wash divide), year of qualification, and whether they worked as a GDP or in a salaried position.

RESULTS

Table 1 shows the proportion of dental practitioners who reported vacancies among the professionals defined. The most commonly reported vacancies were for dental surgeons (18%) and dental nurses (17%). There were no significant differences in the proportion of vacancies for all groups when analysed across gender of practitioner, or time since qualification of practitioner.

Those dental practitioners who were working in general practice were also asked to indicate their attitude towards the employment of a dental therapist in their practice. These findings are summarised in Table 2. Just under half of practitioners (46%) reported that they would employ a therapist. Those who had graduated more recently were more likely to report that they would employ a therapist.

Table 3 shows the reasons given by the respondents who reported that they would not employ a dental therapist in their general practice. The most commonly given reason was lack of space in the surgery (54% of respondents who would not employ a therapist gave this reason).

Table 2. Number (and proportion) of general dental practitioners who reported that they would employ a dental therapist, if legislation permitted (data are reported for GDPs only).

	Yes N (%)	No N (%)	Chi-square value
Overall (n=753) (missing values=114)	294 (46%)	354 (54%)	
Subgroups			
North (n=497)	151 (43%)	185 (57%)	0.01 ns
South (n=414) (missing values=144)	124 (46%)	149 (54%)	
Male (n=595)	180 (43%)	237 (57%)	0.56 ns
Female (n=303) (missing values=153)	85 (46%)	98 (54%)	
Qualified before 1971 (n=165)	35 (35%)	65 (65%)	52.37 p<0.001
Qualified 1971 – 1985 (n=428)	147 (47%)	166 (53%)	
Qualified 1986 or later (n=361) (missing values=121)	110 (50%)	109 (50%)	

DISCUSSION

Just over one sixth of practitioners reported vacancies for dental surgeons in their practice. The data do not provide detailed information on the nature of these vacancies, some may be part-time, or short term posts covering for practitioners on leave, but do support suggestions of shortfalls in dental practitioners in the UK.⁵ Practitioners who worked in salaried positions were more likely to report vacancies for dental surgeons. The reasons for this are unclear, however data on the availability of dental vacancies within the community dental service reported by dental practitioners within the service may not be valid. Dental services managers are probably better placed to provide this information.

Dental nurses were another group where a high proportion of vacancies was reported. Interestingly, in contrast to the situation for dental surgeons, dental practitioners working in the South of England were more likely to report vacancies for dental nurses. A greater proportion of vacancies for dental nurses were reported by practitioners employed in salaried positions.

Dental hygienists were the third group where a large proportion of practitioners noted vacancies. Approximately one practitioner in eight reported a vacancy. As with dental nurses, practitioners residing in the South of England were more likely to report vacancies for hygienists. This may reflect economic conditions. Not only is there greater availability of alternative careers in the South of England, but also average salaries are higher, making dental nursing and dental hygiene less attractive prospects in that part of the country.

Table 1. Number (and proportion) of dentist reporting vacancies for members of the dental team within their practice. Data are shown broken down according to the socio-demographic characteristics of the dentist.

	Dental surgeon N (%)	Dental therapist N (%)	Dental Hygienist N(%)	Dental Nurse N (%)	Dental receptionist N (%)
Overall (n=992)	179 (18%)	45 (5%)	120 (12%)	172 (17%)	73 (7%)
Subgroups					
North (n=497)	105 (21%)	22 (4%)	50 (10%)	69 (14%)	24 (5%)
South (n=414) (missing values=81)	67 (16%)	20 (5%)	66 (16%)	89 (21%)	43 (10%)
Chi-square (p)	3.27 ns	0.08 ns	6.57 p<0.01	8.61 p<0.01	9.44 p<0.01
GDPs (n=753)	110 (15%)	31 (4%)	90 (12%)	115 (15%)	59 (8%)
Salaried (n=204) (missing values=35)	66 (32%)	13 (6%)	27 (13%)	54 (27%)	13 (6%)
Chi-square (p)	32.50 <0.001	1.38 ns	0.14 ns	13.08 <0.001	0.31 ns

Table 3. Reasons given by general dental practitioners for not employing a dental therapist. (Data are reported only for those respondents who indicated that they would not employ a dental therapist, n=345). NB Respondents could indicate more than one reason and therefore percentages do not total 100.

	Overall
Unclear of nature of duties N (%)	50 (14%)
Don't want additional responsibility N (%)	61 (18%)
No room in practice N (%)	188 (54%)
Not enough work to warrant the appointment N (%)	86 (25%)
Hygienist working in the practice covers most of the duties N (%)	69 (20%)
Don't feel it would be cost effective N (%)	74 (21%)
Other reason N (%)	24 (7%)

Without data on trends in vacancies over time it is difficult to determine whether the situation reported here reflects a pattern of increasing availability of positions. Care should be exercised over the interpretation of these data, since the reasons for vacancies may be numerous. For example poor management, poor working conditions, low salaries, short term contracts, dental practitioners taking up vocational training positions, and workforce mobility. Where there is high staff turnover, but an adequate pool of staff to draw upon, vacancies should arise often, but be easily filled. The most difficult situation would be where both factors combine: high staff turnover, and few individuals available to take up posts. The present data are not sufficient to distinguish these possibilities. Future research should address the ease or difficulty with which practices are able to fill vacant positions.

Availability of staff will be related to the available population and the numbers who successfully complete training. Staff turnover is related to the working practices of staff. Information on the working practices of dental practitioners, therapists and hygienists is available.^{1,2,6,7} Very little is known of the working practices of dental nurses in the United Kingdom, for example the proportion of dental nurses working in practice who are qualified or the rate of turnover among dental nurses.

Just over half the practitioners surveyed reported that they would not employ a dental therapist in their general practice. Those practitioners who had been qualified longest, and those working in practices where there was only one dental surgeon were most likely to report that they would not employ a dental therapist. A number of reasons may be proposed for the reticence of longer qualified dentists to employ dental therapists (or the enthusiasm of the more recently qualified dentists). Older dentists may be less familiar with the type of work undertaken by therapists, newer graduates may have been introduced to the work of professionals complementary to dentistry as part of the expanded course. Alternatively dentists who have been qualified longer may guard professional boundaries more closely. The reason most commonly given for not employing a dental therapist was a lack of space. This would equate with the finding that single-handed practitioners were less likely to report that they would employ a therapist. However it is difficult to equate this finding with the reported levels of vacancies for dental surgeons and dental hygienists.

It is worthwhile noting that since the work reported by Allred and Hobdell,⁸ very little additional information is available concerning the most efficient constitution for a dental

team (though this is likely to show variation) and its relationship to population size, as well as other parameters such as socio-demographic characteristics of the population. In particular the role of dental therapists in general practice has yet to be explored; for example the proportion of dental therapists who would choose to work in general practice is yet to be determined. Further research including the modelling of combinations of dental personnel is required.

Two points are worthy of discussion in relation to the human resource implications of vacancy data. The availability of qualified dental personnel is likely to be affected by the influx of qualified dentists from the European Community.⁹ Also it is important to distinguish between the existence of a vacancy and the length of time for which the position has been vacant. In the present study practitioners were not asked to separate vacancies which had just arisen and which were likely to be filled quickly, and those which were unlikely to be filled for some time.

It is not only in general dental practice that human resource problems have become a priority, in general medical practice it has been estimated that in 1998 nearly 1,000 vacancies existed for GPs in the United Kingdom.¹⁰ Furthermore where vacancies are advertised the majority of practices are unhappy with the number of applications they have received, this being a particular problem in areas of high deprivation.¹¹

CONCLUSIONS

A large proportion of dental practices have existing vacancies for dental surgeons, dental nurses and dental hygienists. For dental nurses and dental hygienists vacancies are most common in the South of England. The extent to which these vacancies reflect difficulties in staff recruitment and to which they impact upon the provision of dental services is yet to be determined. However the findings do suggest a shortfall in the numbers of dental personnel in the United Kingdom. The employment of dental therapists in general practice was viewed favourably by 46% of the sample. The reason most commonly given for a reluctance to employ dental therapists was a lack of space in the dental practice.

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