Précis: A greater focus on the promotion of, and education in, special care dentistry among primary dental care providers is required in Ireland.

Abstract: Statement of problem: Part 2 of the Disability Act 2005 requires that all people with a disability are entitled to a needs assessment and, by implication, provision of identified care needs. This process started with children aged 0-6 in 2007 and will roll out to all people with disabilities by 2011. Oral health is part of that needs assessment but it may be that dentists are not in a position to provide that care, by virtue of a lack of education, training or facilities. The majority of dental care delivered would seem, from information gathered as part of this study, to be of an emergency nature. This study aimed to identify the shortfalls in service provision, and their potential causes, to inform what is hoped will be a positive directive on special care dentistry (SCD) in the proposed National Oral Health Strategy.

Purpose of study: To assess the provision of dental services for special care patients (SCPs) by dental practitioners in Ireland. To review the educational background of primary dental care providers in SCD.

Materials and methods: A postal and online questionnaire was sent to every third dentist on the Dental Register in Ireland. An analysis of data was performed using Statistical Programme for Social Sciences (SPSS).

Results: There were 782 questionnaires distributed. Of the 274 (35% response rate) dentists returning questionnaires, 236 were deemed suitable for inclusion; those dentists working in general practice or the Health Service Executive (HSE) only were included. Treatment provided by dental practitioners included emergency services (77%), extractions (72%) and restorative intervention (72%). Oral hygiene instruction for the carers of SCPs was provided by 52% of respondents. Of those surveyed, 25% claimed an awareness of the Disability Act 2005. Qualitative analysis of a definition of SCD and the perceived barriers to care were recorded. Additional fees for the treatment of SCPs were deemed necessary by 78% of respondents. An experience of training in SCD was recorded by 41%, and 65% of dentists expressed a willingness to partake in some/further training.

Conclusions: While the treatment of SCPs was reported by the majority of respondents (66%), the most common service provided was the management of dental emergencies. The need for a greater emphasis on preventive care was highlighted. Knowledge of the Disability Act 2005 was limited and responsible agencies need to increase awareness of the requirements for professional groups, like dentists, under the Act.

Key words: Access, disability, dental health.
Introduction

Despite advances in dental care in recent decades, the oral health of people with disabilities remains poor. While dental caries prevalence may be similar to that in non-disabled populations, the way it is managed is very different, and in some countries it may not be treated at all. Other oral health needs may be higher, for example, periodontal disease. Approximately 20% of the US population has some form of disability and, of those, 12% have severe disabilities. In the UK, over 200,000 adults have profound learning disabilities and/or complex medical conditions. It is increasingly recognised that oral health contributes to well-being and that, conversely, poor oral health at the very least impacts significantly on quality of life and can be life-threatening.

Dentists traditionally have been reported as being reluctant to provide services to people with disabilities. The reasons for this reluctance are numerous and range across physical barriers in their practices, economics, and lack of education. However, identification of such barriers can be the first step in addressing the deficiencies, as outlined by Edwards and Merry in 2002. In Ireland, the Disability Act of 2005, which aims to promote equality and social inclusion, defines disability as “a substantial restriction in the capacity of the person to carry on a profession, business or occupation in the State or to participate in social or cultural life in the State by reason of an enduring physical, sensory, mental health or intellectual impairment”. Access to dental services for such individuals comes under the remit of this Act. However, inequalities in the provision of dental services for children and adults with disabilities in Ireland have been identified through the national oral health surveys conducted during 2002/3.

The treatment of special care patients (SCPs) presents challenges for the general dental practitioner (GDP) that may ultimately become a barrier to the provision of high quality care. In the United Kingdom, a policy document was developed to aid practitioners in addressing some of these barriers, most notably aspects of consent and physical interventions. In the light of the foregoing, this study aimed to:

- ascertain the provision and range of oral health services for SCPs provided by primary care dental practitioners in Ireland;
- identify barriers to oral/dental care that may exist in this country, as perceived by primary care dental practitioners; and,
- evaluate the education and training in the care of people with disabilities received by primary care dental practitioners in Ireland.

Materials and methods

The Research Ethics Committee of the Faculty of Health Sciences, Trinity College Dublin, gave approval for the study. The questionnaire was designed to collect both quantitative and qualitative data. To develop the survey instrument, 20 clinical supervisors and house officers in the Dublin Dental School and Hospital agreed to take part in a pilot study. Subsequent to this, the responses were analysed for further development of the questionnaire. Every third member on the 2007 Dental Register, with an address in Ireland, was selected. A paper-based questionnaire was provided but each recipient was given the option of an online questionnaire to complete as an alternative. Questionnaires were posted and participants were asked to return these by the end of November 2007; a stamped addressed envelope was provided to facilitate return. One month later, a reminder was published in the newsletter of the Irish Dental Association to encourage return of the completed questionnaires.

The questionnaire topics covered were demographic factors (age and gender) and practice-related demographics (field of dental practice, dental school graduated from, practice location and distance from nearest dental hospital). Participants were asked to define SCP and their experience and opinions of training in SCP were also assessed. Experience of the treatment of SCPs, and concerns and satisfactions, as well as their opinions regarding additional fees in the treatment of SCPs, were determined. The provision of oral health instruction for carers, the opportunity to work with a trained dental nurse and hygienist, and the issue of physical access to the practice, were explored. Knowledge of the Disability Act 2005 was assessed. Further suggestions were invited at the conclusion of the survey in an open-ended section of the questionnaire.

The data were entered into a Microsoft Excel spreadsheet. An analysis of the data obtained was undertaken using SPSS statistical software.

Results

Of the 782 dental practitioners to whom the survey was mailed, 272 returned the paper-based survey and two responded via the online version, a total response rate of 274 (35%). A total of 236 were analysed (30%), after the exclusion of 38 questionnaires: 11 were retired/no longer at given address and 27 were deemed unsuitable for inclusion as they did not meet the criteria of a primary care provider (4 in specialist practice, five hospital-based and eight working in both specialist practice and a dental hospital). The number of respondents working solely in general practices or the HSE was 154 and 51, respectively. The number working in a combination of general practice, HSE, specialist practice, hospital dentistry or research was 31; this group was included in the total number analysed.

Respondents were predominantly GDPs (65%) and males over the age of 51 (20%). The reported proportion with previous training in SCP was 41%. Of this proportion, experience of undergraduate training was recorded for 47%, postgraduate for 28%, and both undergraduate and postgraduate for 25% of respondents. Of those surveyed, 58% reported having had hands-on experience with SCPs during training. A further 65% expressed a willingness to participate in training.

Of those responding, 66% claimed to treat SCPs. Of the 154 respondents exclusively from general practice, 89 (58%) claimed to be currently treating SCPs. This is compared with the 51 dentists working solely for the HSE where 42 (82%) claimed to be treating SCPs.
Of those dentists with previous training, 76% reported treating SCPs; of the dentists who claimed to have no previous training in the field, 59% are currently treating SCPs (Figure 1).

The proportion of dentists offering different forms of treatment to SCPs were: 77% emergency services, 72% extractions, 72% restorative, 61% dental screening, 57% periodontal, 48% dentures, 11% sedation, 8% outreach screening programme. Oral hygiene instruction (OHI) to the carers of SCPs was provided by 52% of respondents. Of those who returned questionnaires, 25% claimed an awareness of the 2005 Disability Act. Access to their dental practice was reported as inadequate by 44% of the study group. Barriers to care cited by the respondents included: behaviour and communication difficulties (29%); the treatment of SCPs being outside the practitioner’s remit/capabilities (22%); concern regarding medical history of SCPs (23%); concerns with finance and time (20%); inadequate sedation/GA referral facilities (14%); physical access problems (12%); consent (8%); carer lack of knowledge (5%); treatment relapse (5%); and, staffing issues (2%).

When asked to define SCD, 25% alluded to mental or physical disabilities only, or both, with 10% providing a more comprehensive answer in line with the definition outlined in the Disability Act (2005). Practitioners were asked for their opinion regarding the need for or otherwise for additional fees for the treatment of SCPs, and 78% of dentists responded positively to this.

**Discussion**

This study reports the findings of a questionnaire-based survey of Irish primary care dental practitioners and the provision of services for SCPs. While the results could provide guidance on planning for the provision of oral healthcare for SCPs and education/training of dentists, the poor response rate means that the results need to be interpreted and extrapolated with caution. Efforts to improve the response rate were restricted as the survey was anonymous and non-responders could not be pursued. As the study was awarded the Undergraduate Research Prize by the Metropolitan Branch of the Irish Dental Association, a reminder was placed in their newsletter to encourage participation. The effectiveness of this form of reminder is limited, being entirely dependent on levels of membership of the Association. The results presented refer to primary care providers only; the response rate from those in specialist practice or hospital dentistry is too small for separate analysis. However, response rates as seen in this type of enquiry are to be anticipated; Pourat et al (2007) reported a 46% response to a similar questionnaire-based enquiry, and Loeppky and Sigal (2006) reported a response rate of 52% from general dentists.

The results reported here demonstrate a low level of previous training in SCD, yet a high level of interest in undertaking further education and training in this field. This is encouraging, as similar research has highlighted education and training as a means to improve service provision for this patient group. The treatment of SCPs was reported by approximately two-thirds of participants. The most commonly reported treatments included emergency services, extractions and some restorative care, with a low level of oral hygiene instruction provision. Central to the promotion of public health is prevention. Never is this more relevant than with SCPs. The high prevalence of poor oral health and the significant challenges that exist in the provision of treatment underline the importance of preventive strategies. The results from the national oral health survey of children in special needs schools highlights this need, as do the results from the earlier national oral health survey of adults with an intellectual disability in residential care in Ireland. Glassman and Miller make the point that “people with special needs are the most underserved of the underserved in our society”. The authors outline the development of programmes that are community based, to include oral care plans, which embed customised oral healthcare with the patient in the setting where they reside. For the many patients who will not undertake oral hygiene measures effectively of their own volition, the education and training of carers is at least as important as that of the dental team.

The increasing focus by the World Health Organisation on the...
importance of the primary care approach opens up the possibility of oral and dental care being part of this and, in particular, integrated in the common risk approach. This is as relevant for SCPs as for the general population.

As might be anticipated, a higher percentage of those dentists who indicated that they had previous training in SCD reported treating SCPs (Figure 1). The literature confirms this relationship but also highlights the variables that contribute to the willingness or otherwise of dentists to provide care for underserved groups in society. These variables need to be considered in designing educational programmes. There is debate too as to whether the education and training is more effectively delivered at an undergraduate or postgraduate level. In response to a questionnaire-based survey of general dental practitioners in one area of the UK, the authors identified barriers, which were then addressed by training and access grants. This was necessary in the context of the UK’s Disability Act, which requires dentists to make reasonable efforts to accommodate people with disabilities in their practices. Interestingly, the majority of dentists surveyed here feel additional fees are required for the treatment of this patient group.

The poor level of knowledge regarding the law as it relates to the provision of treatment for people with disabilities emphasises the need for increased awareness of the 2005 Disability Act, given the way in which this legislation places the onus on service providers, such as dentists, to respond to the reasonable needs and demands of people with disabilities. In Ireland in 2007 there were 25,613 people with an intellectual disability, that is, those in receipt of services on the National Intellectual Disability Database, with a recorded increase of 37% since 1996 in those over 55 years of age. For those with a physical or sensory disability, there were 29,089 people registered as service users on the relevant database in 2007, of whom 74% had a physical impairment and two-thirds were adults. Many of the younger patients will have had a lifetime of dentistry and positive expectations of dental services. The dental profession needs to be in a position to respond to the needs and demands of this community, many of whom have significant spending power.

A similar study to the current one, but targeting Irish health board (now HSE) dental surgeons treating patients with special needs, was conducted in 2001. It assessed the current dental health services for those categorised as ‘special needs’ by the Department of Health and Children. The study made a number of recommendations for the development of the service in Ireland. It advocated for the development of policies for the provision of care for special needs groups, the introduction of a specialist register for those with specialist education and training, and the establishment of training programmes. It advised that planning more appropriate preventive dental health programmes was necessary. The need for the expansion of existing services for the treatment of SCPs under general anaesthetic was also highlighted. Subsequent reports have reiterated these recommendations, which, despite the resources directed towards disability services following the publication of the 2005 Disability Act, have not been implemented.

Conclusions
While it is evident that some primary care practitioners provide a service to SCPs, from the level of response to this survey, they are in the minority. These dentists do, however, provide a reasonable range of services against a background of little or no formal education or training in SCD. Education of carers in oral health maintenance receives insufficient emphasis, given its pivotal role in oral health maintenance. This, as well as topics identified as barriers to providing care for SCPs, could be adequately addressed by continuing education courses, for which there will be an increased demand once continuing professional development becomes mandatory for dentists in Ireland. Given the implications of the 2005 Disability Act, there is a clear need to significantly improve the awareness among dental practitioners of their responsibilities under the Act.

Based on the findings from this study, a number of recommendations can be made:

- there is a need for education and enhanced training in SCD at an undergraduate level, with an emphasis on hands-on clinical experience in a supervised environment. The level of interest in further training would suggest a potential for postgraduate courses in SCD, in addition to modules within continuing professional development programmes to address perceived barriers to care;
- effective, evidence-based education and training programmes for the carers of SCPs ought to be established, with a focus on community-based prevention. The inclusion of consideration of oral health into the primary healthcare team, based on a common risk strategy approach, will promote the better maintenance of oral healthcare for vulnerable groups; and,
- the requirements embodied in the Disability Act, introduced in Ireland in 2005, should be promoted among the dental profession.

Key messages
- Two-thirds of dentists surveyed claimed to be currently treating SCPs
- A higher percentage of those dentists with previous training report treating SCPs
- Only 25% of respondents have an awareness of the implications of the Disability Act 2005 for their practice
- Emergency dental services are the most frequent treatment provided for SCPs
- Behaviour and communication difficulties are the most frequently cited barriers to care

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