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Access to dental services for people with a physical disability: a survey of general dental practitioners in Leicestershire, UK

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Objective: To investigate the availability of facilities, including parking, accessibility and toilet amenities, for physically disabled people at dental practices in Leicestershire, and views relating to the provision of treatment, as reported by general dental practitioners. ***Basic research design:*** A cross-sectional postal questionnaire-based study. ***Setting:*** General Dental Service practices in Leicestershire, United Kingdom. ***Participants:*** Questionnaires were sent to all General Dental Service practices (n=123) within Leicestershire. ***Main outcome measures:*** Facilities for physically disabled people as reported by general dental practitioners and views of practitioners in relation to provision of treatment. ***Results:*** The response rate from general dental practices was 80%. The views of 120 (42%) of the 284 dentists approached relating to the provision of treatment to people with a physical disability were recorded. Although up to 77% of the dental practices were considered by practitioners to be accessible to someone using a wheelchair, only 7% also had suitable parking and toilet facilities. The majority of responding dentists treated patients with a physical disability, but 76% of practitioners found it difficult to provide treatment to this group. Concerns regarding the financial cost of providing treatment were raised. There is evidence that conditions are less than optimal in general practice settings for patients with a physical disability receiving treatment. Only nine of the 123 practices in Leicestershire had appropriate parking, access and toilet facilities for physically disabled people. ***Conclusion(s):*** Facilities for physically disabled people at general practices in Leicestershire are limited. If inequalities in dental health among the physically disabled are to be successfully reduced, steps must be taken to make practices more easily accessible with suitable facilities, and to increase awareness of services offered by appropriate dental practices.

Key words: Access, general dental practice, physical disability.

Introduction

Compromised oral health can have a significant negative effect on quality of life (Locker, 1992). Fifty one percent of the UK adult population reported that their oral health had an adverse effect on their life (Kelly *et al.,* 2000). An unattractive smile, and/or bad breath often elicit negative responses from other people and result in poorer social functioning (Sjogren and Nordstrom, 2000). Good oral health can improve health, dignity, self-esteem, social integration and quality of life. The importance of oral health on systemic diseases is also recognized and recommendations are available for specific oral care regimens, for example for people with type 2 diabetes (Taylor *et al.,* 2000).

The Government have recognised that, although there have been improvements in the oral health of the population in the United Kingdom, inequalities still exist. These are most apparent in areas of social deprivation (Land, 2000) and among the socially excluded, where patients attend practices irregularly, particularly in the case of children (Eckersley and Blinkhorn, 2001) and have a poor knowledge of dental services. Lower levels of oral health have been found in a range of patients, including those with psychiatric problems (Sjogren and Nordstrom, 2000), cerebral palsy (Russell and Kinirons, 1992), the elderly (Fiske *et al.,* 1990), epileptics (Ogunbodede *et al.,* 1998), young disabled adults and individuals with learning disabilities (Royal College of Surgeons, British Society of Disability and Oral Health, 2001).

In 2000 the Government outlined in the NHS Plan the intention to redesign the NHS around patients to deliver fast, accessible care (Department of Health, 2000a). "Modernising NHS dentistry" was included in the NHS Plan (Department of Health, 2000b). It is now widely accepted that the "job of finding an NHS dentist can be difficult, time consuming and off putting" (Department of Health, 2000b). The proposed modernisation extends to the Community Dental Service (CDS), professionals within which possess considerable experience in providing a full range of treatment to a wide range of patients with special needs.

A review of dental care for patients with a physical or mental disability in the UK concluded that it was difficult to find information on accessible dental care (Wilson, 1992). A study of patients with cerebral palsy noted that barriers to care included anxiety and fear, the need to be accompanied by a carer, and negative atti-

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tudes to the need for care (Russell and Kinirons, 1992). Additional barriers to care in other groups included a lack of perceived need (Fiske *et al.,* 1990; Sjogren and Nordstrom, 2000), professionals' attitudes to providing care (Fiske *et al.,* 1990; Wilson, 1992), a lack of GDP training (Freeman, 2002) and physical barriers to access to care (Edwards and Merry, 2002). The British Society of Disability and Oral Health has produced professional guidelines for the provision of oral health care to people with a physical disability (BSDH Working Group, 2000). These aim to reduce the barriers to care for this group and ensure that they have access to dental services which meet their individual needs.

In comparison to the general population, the needs and priorities for oral health care vary significantly for people with a disability (Baird *et al.,2007*). Individuals have limited knowledge of services available locally and report difficulties with access to appropriate transport and access to the surgery (Land, 2000; Wilson, 1992). This can result in people with a physical disability displaying lower levels of oral health and a higher degree of untreated decay than the general population (Russell and Kinirons, 1992).

The aims of this study were to:

(i) Investigate the perceptions of GDPs on their practice facilities for people with a physical disability.
(ii) Establish the proportion of dentists who treat physically disabled patients in their surgeries.
(iii) Assess the views of dentists relating to providing treatment to this patient group.

Methods

The survey was designed in collaboration with Community Dental Service colleagues in Leicestershire. Eight closed questions were used to assess the number of dentists working at each practice, the proportion of those who provided treatment to patients with a physical disability, and the facilities available at the practice. Four open questions were included to assess the attitudes of general dental practitioners (GDPs) to providing treatment to patients with a physical disability. The questionnaire was piloted by dental professionals to check for clarity and appropriateness. They were also requested to comment on the content of the questionnaire. After consultation, no change to the questionnaire was deemed necessary.

The Leicestershire Research Ethics Committee granted ethical approval to undertake the study.

A total of 128 dental practices having NHS contracts and 284 general dental practitioners were identified from Leicestershire Health Authority records. Five practices were excluded because they were based in Warwick or Derby. A covering letter explaining the study, a copy of the questionnaire and a freepost envelope were sent to 284 dentists. A response rate of 80% was obtained for the facilities available at 123 dental practices in Leicestershire. In addition to this, 42% (120) of GDPs provided comments in response to open-ended questions relating to providing care for people with a physical disability. Two postal reminders and one telephone reminder were utilised to increase the response rate.

For categorical outcomes, odds ratios (OR) and 95% confidence intervals (CI) were calculated to assess the relationship between the practice size and the attitude of GDPs towards providing treatment to people with a physical disability and facilities available at the dental practices. The null hypothesis that there was no association was assessed formally using a chi-squared test.

Results

Practice facilities

Information was obtained from 99 (80%) of the 123 dental practices in Leicestershire concerning practice size and availability of facilities. The majority of responding practices were small, with 60% employing one or two dentists (Table 1).

The facilities and services available within responding general dental practices are presented in Table 2. A large proportion (94%) of practices offered treatment to patients with a physical disability (Table 2). However, only 77% of these practices were accessible by wheelchair and only 15% reported having toilet facilities suitable for disabled people. Of the 93 (94%) Leicestershire practices that treated people with a physical disability, only nine (10%) reported suitable parking, access and toilet facilities.

Table 3 shows that, compared to larger practices, single-handed practices were significantly less likely to treat patients with a physical disability (OR=0.24, 95%CI=0.16, 0.34, p=0.004), be accessible to patients with a physical disability (OR=0.35, 95%CI=0.13, 0.94, p=0.033), have additional services available such as employment of a hygienist (OR=0.23, 95%CI=0.08, 0.69, p=0.006) or offer specialist services such as sedation, orthodontics and implants (OR=0.31, 95%CI=0.11, 0.86, p=0.021).

Ninety nine percent of the responding dentists did provide treatment for adults with a physical disability. Of the two who did not, one practice was not accessible and one offered only orthodontic treatment.

Although 76% of dentists felt that the presence of physical disability in a patient affected the care they could provide, 19% considered it did not affect the care provided. Five percent did not provide a response. The provision of treatment was considered difficult by 34% as a result of difficulties in patient co-operation during the procedure, maintaining an open mouth to allow treatment (29%), and that additional time was required to provide treatment (21%). Issues such as practice facilities and

Table 1. Number of GDPs employed per practice

No. of GDPs in practice	*No. of practices (n=99)*	
	(n)	*(%)*
1	28	28.3
2	32	32.3
3	17	17.2
4	11	11.2
5	5	5.1
6	3	3.0
8	1	1.0
11	2	2.0

Table 2. The facilities and services available at 80% (99) of general dental practices in Leicestershire.

	Yes (%)	*No (%)*	*No response (%)*
Dental hygienist working at practice	39	61	-
Dental health educator working at practice	12	88	-
Specialist services offered	40	59	1
Sedation	7	91	2
Implants	9	89	2
Orthodontics	28	72	2
Others	8	92	2
Treat patients with a physical disability	98	2	0
Suitable parking for disabled people	56	42	2
Practice and surgery accessible in a wheelchair	77	22	1
Disabled toilet	15	84	1

Table 3. The probability of single handed practices providing additional services

Facilities available	*OR*	*95% CI*	*p value*
Treat patients with a physical disability	0.24	0.16,0.34	0.004
Accessible to patients with a physical disability	0.35	0.13,0.94	0.033
Hygienist working	0.23	0.08,0.69	0.006
Offer special services such as sedation, orthodontics, implants	0.31	0.11,0.86	0.021

problems with the patient's access to the practice also affected the treatment offered.

Respondents confirmed that the most important factors in improving the oral health of physically disabled patients were the ability of the patient to maintain a good oral health programme (53%) and their existing level of oral hygiene (43%). Nineteen percent of respondents stated that the extra time required providing dental care meant that treatment was kept simple, and was therefore limited.

A large proportion of practitioners implemented regular recalls ensuring the maintenance of functional oral health status in their physically disabled patients (68%). Some practitioners (11%) provided additional advice and information to patients on improving oral health.

A total of 108 dentists considered additional factors when planning the provision of dental care for patients with a physical disability. A range of variables were given by each dentist, including the additional time needed to provide treatment (25%), surgery facilities available and access of patient to appropriate transport (18%). The type of treatment offered was limited (14%), and treatment received depended on the level of personal support they had, both at home and in the surgery (7%). Overall, the patient's own ability and motivation to maintain their oral health (38%) was considered the most important factor.

Providing dental care to the physically disabled was considered by practitioners to be rewarding work. Dentists made efforts to accommodate patients as much as possible, but some perceived the treatment of large numbers of patients requiring extra time in the general practice setting to be uneconomical (18%). This perspective was founded in the provision of treatment to disabled patients being regarded as more difficult, and that it usually took extra time to provide care. Respondents noted that additional in-surgery facilities were required and a small number of dentists (9%) held the view that perhaps treatment should be provided in a special clinic by practitioners who have had further training. Although many (76%) felt that physical disability in a patient affected the care they could provide, only one dentist felt that extra training was required. There was no evidence of variation in the attitudes of dentists to providing care to patients with a disability (OR 0.63, 95%CI 0.24, 1.52, p=0.280) between small and large practices.

Discussion

Inequalities in the oral health of the nation are apparent and are highest in areas of social deprivation (Kelly *et al.,* 2000). The barriers to the receipt of oral health care for able-bodied individuals are well documented (Freeman, 2002). The main barriers to oral health care reported by people with a physical disability are poor physical access, problems with transport and a lack of information on services.

Our findings related to the facilities available for people with a physical disability in dental practices in Leicestershire presented in this study are based on the personal, subjective opinions of the dentists surveyed and not on any pre-determined scale or independent access audit. As a consequence, it is difficult to confirm that these practices are completely accessible or indeed not accessible, because the dentists' views of accessibility may not be consistent and may vary from those of patients with a physical disability. An additional limitation of this work lies in the range of interpretations that GDPs may have applied to patients falling within the category of having a physical impairment, which could be expected to include groups with visual or auditory impairments, the elderly and those with a range of mobility problems. However, little has been previously known about the views of the GDPs who provide care for people with a

physical disability (O'Donnell and Cooper, 1984) and our survey of GDPs has provided a valuable insight into the perspectives of GDPs in relation to the care they provide to people with a physical disability.

Issues such as the perceived need of the individual for care have been long established in the general population. Whilst many people with disabilities lead independent lives, some may require assistance in maintaining their oral health and accessing dental services. Such individuals may include, in addition to individuals with physical disabilities, the elderly, mentally ill or people with learning disabilities. The degree to which dental services meet the needs of these members of society is an important consideration.

Information was received from 80% of all dental practices in Leicestershire, a response rate that is comparable to a related study on accessibility to dental services for disabled people (Edwards and Merry, 2002). The low response of 42% from the individual GDPs in this study further emphasises the difficulty found by previous authors in obtaining information from professional groups within a limited research timescale (Stocks and Gunnell, 2000).

Of the practices who responded in this study, the majority reported providing treatment for physically disabled patients in the general practice setting. Over 77% of responding practices were considered by GDPs to be accessible to people with a physical disability, a proportion that is much higher than that reported in a previous study, where only a third were accessible (Edwards and Merry, 2002). The current study highlights the fact that, although the majority of dental practices offer treatment to people with a physical disability, they may be providing it in less than optimal service environments, as found in other studies (Edwards and Merry, 2002). Single-handed practices, in particular, appeared limited in their capacity to provide accessible services.

The dental profession as a whole have received little training on the provision of treatment to patients with a physical disability (Freeman, 2002), which may help explain the fact that 76% of dentists in this study reported that the care they provided was limited. However, when undertaking the recent South Yorkshire Primary Dental Workforce Study, when asked to state training needs, no dentists reported requirements for special care dentistry training for themselves or their dental team. Therefore, there may be a lack of perceived need for training in this field, despite the apparent inequalities experienced by physically disabled people (McGrother *et al.,* 1999).

Dental practices are now legally obligated to make reasonable modifications to their practices and services provided in order to comply with the Disability and Discrimination Act (DDA) (HMSO, 2005). Earlier papers on the DDA and dentistry (Edwards and Merry, 2002; Merry and Edwards, 2002) outlined the actions required by dental practices to ensure compliance with the DDA. Actions included use of an access audit to assess the need for structural changes to practices, disability training, or alternative provision of services where reasonable to improve access to care. Such activities would be expected to increase the levels of physical accessibility and disabled facilities in existence at practices.

However, in line with the social model of disability by which disability is viewed as being rooted in socio-political barriers, as discussed by Shakespeare and Watson (1997), the removal of barriers to care beyond physical accessibility need to be addressed by service providers. Dental services need to become more inclusive, accessible and incorporate the needs of people with a physical disability in their planning. Yet, as of June 2005, only six practices in Leicester were registered on the NHS national website as providing services to patients with special needs. No practices were registered as providing either domiciliary or mobile surgery services; further emphasising the continuing need for progress in the development of appropriate dental services for people with disabilities. It must also be ensured that patient groups are aware of existing local specialist services, such as those provided by the CDS.

Whilst approximately 700,000 people use wheelchairs in the UK all or some of the time (Merry and Edwards, 2002), this is a small number compared to the estimated 9.8 million adults with a disability covered by the DDA (Department for Work and Pensions, 2004). It is therefore important for service providers to consider the wider needs of people with a physical disability beyond individuals who may require the use of a wheelchair, including those with visual and auditory impairments and the elderly.

Improving access to a service requires cooperation across many organisations, emphasising the increasing need for integration between medical, dental and other health and social care professionals. Indeed, for PCTs to effectively commission primary dental care for their communities, they must firstly have accurate and timely information relating to the numbers of individuals who have special requirements and the proportion of practices that are accessible for care. Increasing awareness of root causes and wider determinants for the existence of inequalities in healthcare and the planning of appropriate initiatives should ensure that services are effectively targeted to socially excluded groups.

The recent introduction of the new dental contract, which changed the way dentists are remunerated, should mean that financial considerations would no longer be a factor when treating patients with a physical disability. Therefore, whilst this survey has allowed the views of dental practitioners in relation to the provision of dentistry to people with a physical disability to be scoped, further qualitative research to further probe these views and their underlying factors would be useful. Additional research to investigate the views of people with physical disabilities in relation to the accessibility and appropriateness of dental services would also be of value in further exploring this field.

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