Care pathways and provision in bariatric dental care: an exploration of patients' and dentists' experiences in the North East of England

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Key points

- Highlights both patients and dentists are aware that obesity affects dental care provision, mostly due to the weight limits of dental chairs and the impact on systemic health.
- Suggests though dentists are cautious about discussing obesity, patients with obesity want equal access to treatment and are willing to discuss their weight to facilitate this.
- Discusses the difficulties faced by patients with obesity and dentists in using currently available referral pathways.

Abstract

Introduction Levels of obesity in the UK are increasing. The suitability and safety of dental care delivery can be affected by obesity. When patients' weight exceeds that of a normal dental chair, referral to specialist settings can be appropriate, yet no research has explored the process of care for this group.

Aims This study aimed to explore the experiences of patients and dentists regarding referral to bariatric dental care facilities.

Method Semi-structured interviews were completed with patients referred to a bariatric dental service and referring dentists. Interview transcripts were analysed thematically.

Results Twelve dentists and eight patients participated. Both groups were aware that obesity influenced care and had concerns about the safety of treatment. Dentists were cautious about discussing weight though patients were willing to discuss this. The challenges in identifying weight and organising appropriate care were key issues affecting both patients and dentists.

Conclusion Dentists should engage in discussions regarding obesity without hesitation, where appropriate. Redesigned patient-focused care pathways to direct patients to accessible services would help reduce stigma and improve safety for patients with obesity.

Introduction

Being overweight or obese is defined as abnormal or excessive fat accumulation that may impair health.[1] Obesity is directly and indirectly linked to a wide range of systemic diseases including but not limited to: cardiovascular disease, type 2 diabetes, obstructive sleep apnoea and musculoskeletal problems. Each of these can have implications on accessing and receiving health care interventions[2,3,4,5] including dental care.[6,7,8] In addition, associations have been made between obesity and dental diseases, particularly caries;[9,10,11] though these associations aren't consistently clear, they are worthy of consideration by dental professionals.

Most patients with obesity can be safely treated in primary dental care, yet as weight increases the safety of treatment provision on standard chairs can be affected.[6] The Equality Act details the need to provide equal access to services for all patients, regardless of physical disabilities including obesity.[12] To facilitate dental care, some patients with obesity are referred to specialist facilities with bariatric dental chairs, often in community dental services (Fig. 1). For this patient group, the process of care provision and referral pathways have not been well researched and patients' experiences are poorly understood.[7]

Obesity is increasing, though the rate of increase is slowing.[13] In 2015, 62.9% of adults in the UK were overweight or obese and Public Health England have estimated that by 2050 obesity will affect 60% of adult men, 50% of adult women and 25% of children.[13] It is anticipated, therefore, that as obesity increases, those requiring treatment in a bariatric dental care facility will also rise.[6] Due to these changes, and the promotion of patient-driven services,[14] understanding patients' experiences as well as the viewpoints of clinicians could provide insight for future care planning, commissioning and service improvement. Both groups' perspectives could ensure a patient-centred, dignified experience to care can be delivered[2] throughout the patient's journey from initial assessment in primary care to treatment in a specific setting.

Aim

The aim of this study was to explore the experiences of patients who were referred for bariatric dental care provision and to explore dentists' perceptions of this process in order to highlight any barriers to optimal care provision for patients with obesity.

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Methods

A qualitative method was used in the form of one-to-one semi-structured interviews with patients and dentists. This approach allows a comprehensive and in-depth understanding of lived experiences of each group.[15] Participants for both groups were identified from incoming referrals to a community dental service in the North East of England which houses a bariatric dental chair. Incoming referrals were used to enable a purposive sample of both referring practitioners and patients with obesity who were invited to participate in the study. Inclusion and exclusion criteria for each group are detailed in Box 1.

Informed written consent was gained from each participant, with anonymity assured. Separate topic guides were used for each group, with the topic guide for patients being piloted with a patient representative who had experience of bariatric dental care in a separate part of the UK. Interviews were audio recorded, then transcribed verbatim except for the de-identification of participant, staff or location names. Audio recordings were deleted after transcription. Unique patient identifiers were used so that each transcript could not be linked back to the original participant. Thematic analysis was used separately for each of the two groups.[15,16] Manuscripts were reviewed by two individuals (AGR and AA) who separately identified key reoccurring themes which were refined in an iterative manner as further manuscripts were reviewed. The study was approved by the Health Research Authority following a favourable opinion form the North East (York) Research Ethics Committee (17/NE/0177). Data were collected between September 2017 and July 2018.

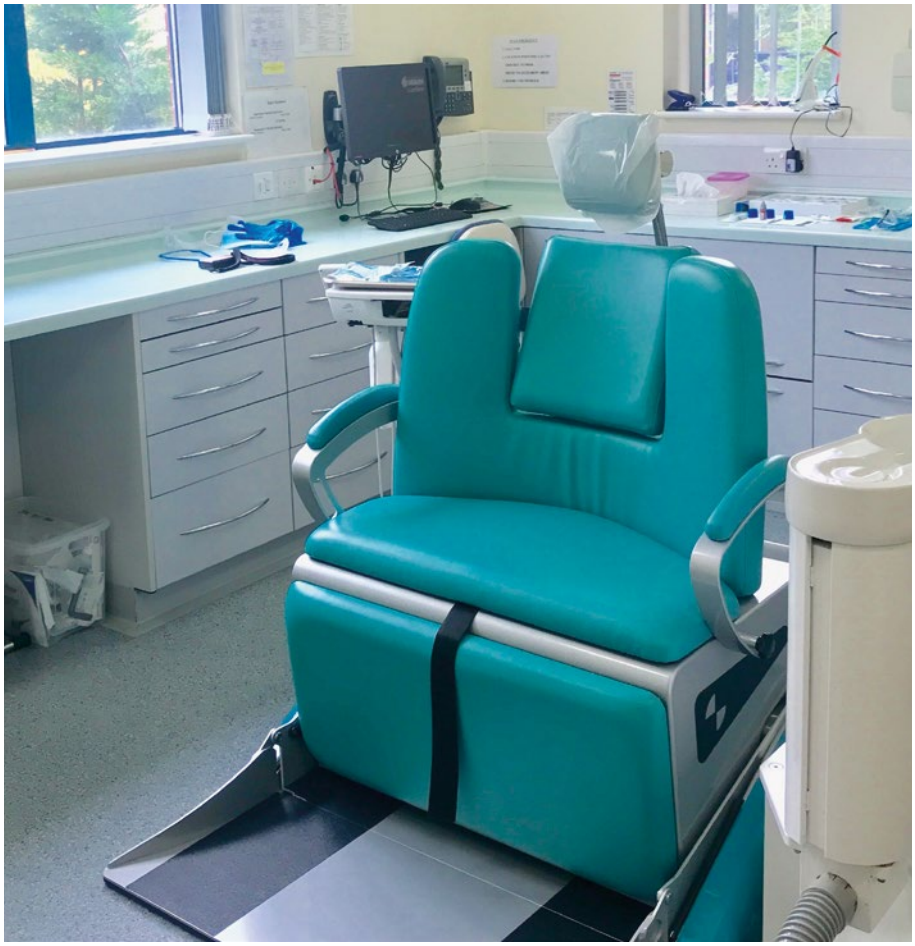

Fig. 1 An example of a bariatric dental chair in a community dental service

Box 1 Inclusion and exclusion criteria for recruiting patients and dentists

Patients

Inclusion criteria:

- Patients who have been referred to the community dental service on the basis of their weight, with anticipation of the need to use bariatric dental care facilities.

Exclusion criteria:

- Inability to give informed consent to participate in the study
- Unable to speak English, no facilities for interpreters were available.

Dentists

Inclusion criteria:

- Holding a primary dental qualification of BDS/BChD or equivalent and be currently registered with the General Dental Council (GDC)
- Have experience of referring or patients with obesity to bariatric dental care facilities.

Exclusion criteria:

- They are not registered or currently suspended from the GDC register
- They are unwilling to give informed consent to participate in the study.

Results

Twelve dentists and eight patients participated in the study. Data saturation occurred for each group at this stage and recruitment was therefore discontinued. Participant demographics are shown in Table 1. Interviews lasted between 14 and 51 minutes (mean 36 minutes). Though the themes identified for the two groups contained many parallels (Table 2), the experiences and meaning behind themes varied substantially between the groups.

Themes from dentists

Awareness of impact of obesity

Dentists were generally aware that obesity had an impact upon dental care provision. The major problems identified by dentists were the inability to recline a normal dental chair for obese patents and the systemic impacts of obesity, particularly in provision of conscious sedation. Despite an awareness of these impacts, there was an uncertainty of what should be done and who should provide care for those who cannot be seen in a general dental practice setting:

'They're clearly… too big for the normal dental chair, so you can imagine that is embarrassing or upsetting for anyone'.

Difficulty broaching the topic

Dentists felt that discussing weight with patients was an uncomfortable process. Some clinicians reported that medical history forms helped aid this discussion, yet there was a general concern about causing offence or about damaging rapport with patients. Though the conversation was difficult, the dentists who participated in the study were willing to discuss weight and only few negative experiences were reported:

'It's uncomfortable... especially if they've made a point of not telling you… like even if they know about their weight then it's not nice to have to discuss it… you don't want to be seen to be critical when it's your job to help'.

Challenges in determination of weight

Dentists felt a need to know the weight of patients in order to determine who could be seen in their service and who may require a referral for bariatric care. Paralleling the uncertainty as to whose weight exceeded the chair limit, there was uncertainty about which patients should be asked about weight and the threshold at which this conversation should be had.

Medical history forms or direct conversation were reported as the main approach to determine a patient's weight, while patients' self-reported weight was felt to be potentially inaccurate. Dentists agreed that they were not well placed to estimate weight by sight alone:

'I think I only talk about it when it seems that they're really far too heavy… I think the problem is that people don't know what 20 or 25 stone looks like'.

Equipment and safety

Related to determination of weight, few dentists had scales to definitively assess patients' weight and felt this equipment was unnecessary unless intravenous sedation was being provided in the practice. Though dentists were cautious of the greater likelihood of comorbidities, and of these comorbidities increasing in sevetity, the major concern regarding equipment was the weight limit of the available dental chairs or the problems with alternative equipment to facilitate treatment:

'equipment damage, structural damage… safety… and as the dentist you take most of that responsibility… if the chair went back and wouldn't come up you've got a big problem'.

To promote safety in care delivery, dentists made adaptations and adjustments including treating patients sitting upright instead of reclined on a dental chair, refusing treatment and referring onwards, or use of a hospital-style trolley. Ceiling mounted hoists in community dental services could not accommodate patients whose weight exceeded that of most dental chairs. The ability to provide treatment using each type of equipment was detailed to be limited for both patients and clinicians:

'If they're unsafe for the chair we shouldn't see them in the chair… we have a duty of care don't we? We also have to be safe'.

Problematic referral pathways

Though the dentists recruited had identified patients with obesity and referred them to specialist services, the pathways by which patients could be referred were seen to be unclear and often impractical. Dentists felt that patients did not want to or should not have to travel long distances, and that this led patients to desire care in general practice, despite the challenges experienced. This led to professional and ethical challenges:

'We're really left in limbo now, as we have an identifiably larger group of patients in this situation where we can't get them into the right place and the right place is somewhere they don't want to go'.

The problems with care pathways were particularly evidenced in dental emergencies. When patients presented with pain or infection, some dentists felt pressured to provide treatment due to the length of time taken for a referral to be received and acted upon. Despite the aforementioned safety concerns, various approaches were used to provide emergency care including use of equipment in a manner beyond the manufacturer's instructions, prescribing antibiotics instead of actively treating disease, or simply advising analgesia to avoid the perceived unsafe use of routine dental equipment. Dentists felt unsupported by the wider available services in delivering care for patients with obesity for both emergency and elective treatments.

Table 1 Demographics of study participants

Group	Year of qualification	Gender	Practice setting
Dentists (n = 12)	1986–2016 (mean 2002)	Male (6) Female (6)	General practice (8) Community Dental Services (3) Hospital Dentistry (1)
	Age	**Gender**	**Occupation**
Patients (n = 8)	22–59 years (mean 38 years)	Male (3) Female (5)	Employed (3) Unemployed (5)

Table 2 Themes identified for each group

Patient themes	Dentist themes
Awareness of impact of obesity	Awareness of impact of obesity
Difficulty broaching topic	Willingness to discuss weight
Challenges in determination of weight	Stigma and embarrassment
Equipment and safety	Access
Problematic referral pathways	Inconsistent care approaches

Themes from patients

Awareness of the impact of obesity

Similar to dental professionals, patients who had been referred for bariatric care provision were well aware of the impact of their weight upon all types of health care delivery, including dentistry:

'you know; I know… people like me don't have a lack of knowledge of their weight problem'.

Patients were generally not surprised to have been referred to specialist services, though some only became aware that the impact extended to general dental practice when their weight was identified as exceeding a specific limit. Patients had often been seen in general practice settings for a prolonged period before a referral to specialist services, yet none felt this was inappropriate due to ongoing experience of their weight impacting upon their health and their health care.

Willingness to discuss weight

Reflecting their awareness of their weight and its impact on health care, patients were open and willing to discuss weight with dental teams. None of the recruited patients expressed distress or difficulty with declaring or discussing their weight and its impact upon care:

'you've got to be open about things, you know what I mean, I'm 60 [yeah], I'm never going to have a size 12 figure'.

Despite an openness, participants did not wish to have ongoing discussions about their weight once its impact had been identified. It was mostly felt that the issue of a greater weight should not be dwelled upon, and not discussed repeatedly if this has no benefit:

'Once the topic is raised, and it's identified that I'm heavy, it should be left there. We don't need to keep discussing it. We just need a practical solution and to run with it'.

Stigma and embarrassment

A consistent theme across all patient participants was the experience of stigma. Patients had received direct verbal comments about their weight and indirect stigma from there being inadequate or lacking facilities for them in both healthcare settings and general society. Dental settings were no exception, and some patients felt they had been discriminated against and treated unfairly instead of being suitably accommodated:

'*People will probably just see the fat guy and think he doesn't wanna walk 30 feet… they're quick to judge'.*

Access

Patients' main concerns were related to their ability to access dental care. Challenges with access included both travel to a dental setting and physical access to dental clinics and the chairs within them:

'The access is paramount obviously, if I can't get in … It's the, it's doorways and things that people don't realise a disabled person's not going to get through there with a big wheelchair [yeah] and bigger chairs [yeah]'.

Patients reported a desire to be as independent as possible and wanted to be able to access care as any other patient would do. Patients understood the need for a specific bariatric service, yet did not feel that it should be a challenge to receive care in this setting:

'I don't want any extra special treatment; it should just be the case that if you are a patient you can access the care you need'.

Inconsistent care approaches

Paralleling the problems with referral pathways described by dental practitioners, patients reported frustration with inconsistent information and approaches to care. When patients had either attended or contacted a general dental practice, some were immediately referred and some were seen for initial visits. Some underwent initial treatment before their weight was identified as a concern. Patients reported that different dentists in the same practice approached their care in different manners; this was felt to cause unnecessary difficulty in accessing the care they required. Confusion was also reported as many patients felt that their friends or colleagues with obesity were treated in a simpler or more straightforward manner:

'So surely either I'm being wrongly treated or other dentists just don't want to weigh people or talk about it? [I think they] just get on as usual. Some of the others I'm trying to lose weight with are heavier than me… maybe I should just go to their dentist'.

Aligned with these inconsistencies, many patients felt that they had received poorer quality care at some point in their journey of dental treatment. This was partly related to the available equipment or lack thereof, and the distances that had to be travelled to access a bariatric clinic. Additionally, though accepting of referral to specialist services, patients felt they were faced with suboptimal treatment for both emergency and normal care:

'She gave me some tablets… something… antibiotics anyway, but she said she wasn't meant to but I think she could see how much bother I'd had and said she couldn't do anything else due to my size'.

Discussion

Following from a review of dental care for patients with obesity,[7] it was beneficial to understand patients' and dentists' experiences, and to identify the issues felt to be of importance to both groups. The similarities in perspectives from the groups on similar clinical challenges are particularly noteworthy. Clearly, both groups were aware that treatment could potentially differ for those with obesity when weight exceeds the limit of available dental chairs. Despite different perspectives on the process of treatment, or referrals, similar problems affected the process of care delivery and referral for patients and their dentists. The concerns dentists had in referral were reflected in patients' reported experiences.

While dentists were wary of causing offence when discussing weight, the patients themselves felt a direct approach would be preferable and that dentists need not be so cautious. Specifically, the fact that dentists were uncomfortable broaching the topic of weight is seemingly unwarranted as patients were generally willing to discuss their health, with their weight being a component of this. Despite the caution exercised by dentists in discussing weight, it is unfortunate that patients felt stigmatised in dental services. Whether intentionally applied or not, stigma is both directly related to statements from dentists and from many of those involved in their overall journey through care. This parallels findings in other healthcare settings.[17]

As both groups are aware of the impact of weight on dental care, it is unfortunate that shared pragmatic solutions to this challenge were often unavailable or not agreed upon. This could be due to either lack of suitable services to which patients could be referred to or simply due to lack of awareness or lack of suitability of regional care pathways. Clearer guidance to dental services on suitable equipment, including scales, and who to refer in what instances may promote better use of bariatric dental services and ensure care can be safely delivered for those whose weight exceeds that of dental chairs in most clinics.

Though the patients interviewed had been referred to a bariatric clinic, it was not felt that this was always an ideal solution to care provision. Patients' reported challenges with access raise issues with the overall care pathways for bariatric care and highlight that services need to consider the entire patient journey instead of simply housing a larger chair or a chair with a higher weight limit. Transport to clinics and equipment to safely support patients from transport vehicles or wheelchairs to the available dental equipment should be available. Commissioners should ensure that the availability of these facilities in appropriate services aligns with the volume of need.[18] Involvement of patients in service design can be highly beneficial,[19,20] and this approach may ensure that services are deemed accessible and appropriate for those unable to access routine dental care in general dental practice.

There are some limitations to the study completed, particularly related to response and recruitment bias. The completion of the study in a single region introduces the potential for the findings of the study to differ from those of patients and dentists in other regions. Recruiting from referrals to a bariatric clinic was the only available sampling frame yet does not identify either dentists who have not referred patients with obesity or patients who are failing to be referred at all. On this basis, though data became saturated readily and useful insight was gained into the

experiences of both groups, the data collected may not reflect the thoughts and experiences of the wider population. Dentists who do not identify obesity or refer patients appropriately and patients who either attend or choose not to attend with general dental services were not able to be included and their experiences of care remain unexplored.

Conclusion

The processes and procedures in caring for people with obesity could be improved by ensuring care pathways reflect patients' individual and collective needs. Having acceptable dental services in accessible locations could make it easier for dentists to raise the issue of obesity and its impact upon dental care, though patients are generally comfortable in these discussions providing their care can be adequately facilitated. An openness and willingness to determine and discuss weight, in line with suitable referral pathways may help tackle the stigma reported by patients with obesity. It could be argued that routinely assessing weight and height in order to calculate a BMI should be a routine component of medical history-taking. A greater number of well-located and readily accessible bariatric facilities would address dentists' concerns regarding the unsafe use of standard dental chairs and could ensure the standard of care received by patients with obesity is similar to that of other patients. Reported experiences of both groups can guide service design and the commissioning of bariatric dental care services in the future.

Declaration of interests
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