

A survey of patients' concerns about visiting the dentist and how dentists can help

Hannah Calladine¹  | Charlotte C Currie^{2,3}  | Chris Penlington² 

¹School of Psychology, Newcastle University, UK

²School of Dental Sciences, Newcastle University, UK

³Newcastle Upon Tyne NHS Foundation Trust, Newcastle Upon Tyne, UK

Correspondence

Hannah Calladine, School of Psychology, Newcastle University, UK.
Email: hcalladine@outlook.com

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Abstract

Background: Regular dental attendance is important in order to receive preventive care, maintain good oral health and identify oral and dental disease at an early stage; however, many people do not visit their dentist regularly. Barriers to regular attendance have been studied in small patient groups but not in the wider general population.

Objective: To outline concerns about visiting the dentist and suggestions about how dentists could help using a general population sample.

Method: A survey was constructed using Qualtrics XM software and circulated. Respondents completed questionnaires about dental anxiety and about their concerns and suggestions around dental appointments including the option for free-text answers.

Results: One hundred and fifty-four people completed the survey. Common concerns were the unknown element (62.58%) and worries about 'bad teeth' (60.54%). The most popular request for change was for dentists to inform patients of the condition of all their teeth including those in good health (86.30%). A thematic analysis of qualitative responses identified themes of control, shame, discomfort, long-term impact and cost. Several concerns and suggestions for improvement were expressed.

Conclusion: Although the pain associated with dental treatment was identified as important, concerns about the unknown and feeling vulnerable were seen as a higher priority. People in the general population want dentists to help them to feel informed and in control at dental appointments and to be involved in discussions about how they are feeling and what is important to them.

KEYWORDS

dental anxiety, dental attendance, survey, thematic analysis

1 | INTRODUCTION

Regular attendance at the dentist is important; yet for many people, there are barriers. According to NICE Clinical Guidelines,¹ recall rates for dental appointments should occur between 3- and 24-month intervals. In comparison, the 2009 Adult Dental Health Survey reported that only 58% of UK adults had attempted to make a dental

appointment in the past 3 years.² One barrier to dental attendance that has been extensively studied is dental anxiety, which has been estimated to affect approximately 16% of the UK population³. Individuals with dental anxiety often avoid attending dental appointments and have worse oral health as a product of this avoidance⁴.

There can be a tendency for some dentists to assume that dental anxiety is related to fear of pain³ although often this may not be the

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case. The cognitive vulnerability model⁵ proposes that fear arises as a result of how an individual perceives a situation and that this in turn is affected by multiple factors. In terms of dental anxiety, perceptions of dental treatment as being uncontrollable, unpredictable, dangerous and disgusting have been shown to correlate strongly with dental anxiety.⁶ Likewise in a different study, the perception of being treated by the dentist in a cold or uncaring manner or frightened during treatment, as well as experiencing pain during dental treatment, was associated with development of dental anxiety.⁷ Armfield suggests that it is important to carefully assess dental anxiety in order to be able to understand and address its cause in any given individual.⁸ However, although dentists are aware of their patients' fear, there can be a tendency for them to avoid mentioning it as long as patients are co-operative.⁹ In fact, there is increasing evidence that dentists themselves can be one element of a complex web of causation that can present barriers to dental attendance.¹⁰ There may also be barriers or concerns that do not directly relate to dental anxiety, such as cost or accessibility.¹¹

Much research into dental anxiety to date has been guided by the 'expert' view of dental care providers. There is limited published research that is guided by a patient perspective of factors that may be of concern to them. In a qualitative study,¹² 30 dentally phobic patients reported that embarrassment and powerlessness were the key components in their fear. Physiological, cognitive, behavioural, health and social factors have also been identified by patients as important in relation to dental fear.¹³ Research on barriers to dental attendance to date has tended to focus on specific groups of patients such as those who are anxious, do not attend regular appointments or face specific barriers.

There appears to be a gap in the research about concerns regarding dental appointments that are important to the wider general public, whether or not they experience dental anxiety. There is also little research with a focus on the general population about patients' own perspective on what they find helpful or would want from their dentist. This study aimed to fill the gap by identifying concerns and potential solutions from the perspective of the general population.

2 | METHODS

This study was approved by the Newcastle University's Faculty of Medical Sciences Research Ethics Committee (ref: 6506/2020).

Topics for the survey were informed by individual interviews with five people, all of whom had attended the dentist regularly up until the beginning of 2020. These contributors were asked to discuss their feelings about going to dental appointments and to consider how other people might feel about the dentist. They were then encouraged to make suggestions on what they think dentists could change to improve the experience of dental appointments. Recurring themes from the interviews were used to develop two surveys (see results section). Each survey consisted of 11 statements and responses on a 5-point Likert scale ranging from strongly agree to strongly disagree. An additional question asked respondents to identify the factor that they believed to be most important. The

focus of the first survey (concerns about dental attendance) was concerns that people had about attending dental appointments. The second (improvement to dental practice) asked about how dental staff could help. The second survey included an additional question about whether participants believed that their dentists already engaged in some of the recommended actions.

An online questionnaire was constructed using Qualtrics XM (Qualtrics, Provo, UT, 2020¹⁴), which included the questionnaires described above. The Dental Anxiety Scale¹⁵ was also included. This scale includes 4 questions, each of which is scored on a scale of 1 to 5. Scores from each question are added to create a total score of between 4 (no anxiety) and 20 (extremely high anxiety). Internal consistency is high with Cronbach's alpha estimated at 0.89 and a recommended cut-off of 15 representing high dental anxiety.¹⁶

2.1 | Procedure

The survey was distributed through social media (personal Facebook and Twitter pages and local and national business owners and recycling groups on Facebook) and a research participation scheme for university students. Participants gave informed consent at the start of the survey. Demographic data were also collected including the following: age, gender, ethnicity and date of last dental attendance.

Two open questions, at the end of each of the questionnaires, were used to generate qualitative data with free text, to gain a deeper understanding of the participant's opinion on the dentist, with the potential for new ideas to be discussed.

Qualitative responses were analysed by thematic analysis, as described by Braun and Clark.¹⁷ After familiarisation and reading over the data, initial codes were then established based on the recurring patterns in the data. Codes were identified by finding repeated words and phrases that occurred throughout the data. Two researchers coded a sample of the free-text data independently. They then compared their notes and resolved differences through discussion.

The analysis was data-driven and interpreted at the semantic and latent level. This was done by reading the data at face value and considering if an underlying meaning can be inferred from the text. Codes were then organised into themes.

3 | RESULTS

3.1 | Demographic Data

A total of 154 people responded to the survey. Demographic characteristics of the sample are shown in Table 1. Age ranged from 18 to 82 years (mean 38.99 +/- 17.35 years). In terms of ethnicity, 92.57% of participants were White British. The other 7.43% were of different ethnicities, as reported by participants: Mixed White/Asian; Indian; Black African; Latin; Bangladeshi; Mixed White/Caribbean; and Asian British and Lithuanian.

| | Female | Male | Total | |
|---------------------------|------------------------|---------|---------|-------|
| Participants (N) | 130 | 22 | 154* | |
| Mean age (years) | 39.08 | 40.23 | 38.99 | |
| Age SD | 17.24 | 18.59 | 17.35 | |
| Age range | 18 - 82 | 18 - 67 | 18 - 82 | |
| White British (%) | 93.08 | 90.9 | 92.57 | |
| Last attended the dentist | Less than 6 months (%) | 27.69 | 13.63 | 26.62 |
| | Less than 2 years (%) | 57.68 | 68.81 | 58.44 |
| | Less than 5 years (%) | 9.23 | 9.09 | 9.74 |
| | More than 5 years (%) | 5.38 | 4.54 | 5.19 |

Note: Demographic characteristics of respondents to dental concern survey describing gender, age and ethnicity.

*including one participant who was non-binary and one who did not disclose their gender.

| Going to the dentist | Agree (%) | Disagree (%) | Most important (%) |
|---|-------------|--------------|--------------------|
| Is a painful experience | 39.19 | 39.19 | 20.69 |
| Makes me feel vulnerable | 54.42 | 31.3 | 10.34 |
| Makes me feel judged | 48.98 | 37.42 | 10.34 |
| Makes me worry that my teeth are bad | 60.54 | 23.12 | 10.34 |
| Worries me more than going to the GP | 55.1 | 27.89 | 2.76 |
| Worries me because even though my teeth feel okay, I do not know if they will be there is something wrong | 62.58 | 25.17 | 28.28 |
| Is an enjoyable experience | 10.95 | 68.5 | 2.07 |
| Makes me feel guilty for not looking after my teeth properly. | 48.3 | 35.38 | 2.76 |
| Is a relaxing experience | 9.52 | 74.15 | 4.83 |
| Feels personally invasive | 48.29 | 33.34 | 6.21 |
| Is challenging because they may not understand my cultural needs (ethnic minority respondents) | 2.08 (28.6) | 67.36 (7.14) | 1.38 (7.14) |

TABLE 1 Demographic Characteristics of the Sample

TABLE 2 Percentage of participants who agreed or disagreed with the responses in the concerns about dental attendance survey and percentage who said each item was the most important consideration

4 | DENTAL ANXIETY

Dental anxiety scores ranged from 4 to 20. Responses were considered to be on an ordinal scale due to the lack of consistency between each descriptor, making non-parametric descriptions of the data appropriate. The median for this sample was 10, indicating a moderate level of dental anxiety.¹⁶

5 | STUDY-SPECIFIC QUESTIONNAIRES

Study questionnaires are available in Tables 2, 3 along with percentages of respondents who agreed and disagreed with each statement. The most commonly endorsed concerns expressed were the unknown element (62.58%) and concern about having 'bad teeth' (60.54%). In contrast, 39.19% of respondents expressed concern about pain associated with dental treatment.

The statement that most participants agreed with (86.30%) for improving dental practice was that the 'Dentist tells the patients the condition of all their teeth (not just those that need work)'. The majority of respondents (67%) agreed that their dentists already carried out at least some of the suggestions made.

The unknown element (28.28%) was endorsed as the most important concern, followed by treatment-related pain (21%). The most commonly endorsed suggestion for improving dental practice was again for dentists to discuss the condition of all teeth, including those that are disease-free (20.69%).

6 | QUALITATIVE DATA

Five themes were identified: control; shame; discomfort; long-term impact; and cost. Each theme is outlined below with representative quotes. Additional quotes are provided in Table 4.

TABLE 3 Percentage of participants who agreed or disagreed to the responses in the improvements to dentists' practice survey and the total number of participants

| It would be helpful if | Agree (%) | Disagree (%) | Most important (%) |
|---|-----------|--------------|--------------------|
| The dentist had a conversation with me, about what will happen at, the start of the appointment | 81.51 | 6.16 | 18.62 |
| The dentist explained what tools were going to be used | 61.64 | 16.44 | 6.9 |
| The dentist explained to me the meaning of the codes the dentist is using to assess my teeth | 70.55 | 13.7 | 13.79 |
| The importance of dental visits and oral health were explained during the appointment | 58.22 | 20.54 | 4.14 |
| I did not sit in the dentist chair straight away | 23.29 | 45.21 | 0.69 |
| The dentist wore a clear face mask so I could see their face | 24.65 | 32.19 | 2.07 |
| There was music playing in the dental surgery | 63.7 | 10.27 | 11.72 |
| The dentist asked me if I felt nervous at the start of the appointment | 58.9 | 21.23 | 17.93 |
| The dentist would ask how I am feeling at the end of the appointment | 69.86 | 11.64 | 3.45 |
| The dentist would tell me the condition of all my teeth, not just the ones that require treatment | 86.3 | 4.79 | 20.69 |
| The dentist understood my cultural needs better | 11.27 | 25.35 | 0 |

6.1 | Control

Control was identified as a central theme, which also linked to all of the other themes. Respondents reported that they could feel out of control during dental appointments because of not knowing what was happening, often leading to feelings of fear. Several respondents felt that they could not ask for information they wanted, emotional support or breaks in treatment. This was associated with increased fear and a reduced trust in the dental team.

'little time for reassurance and explanation which has increased anxiety and the feeling of unknown' (P24)

'felt like I couldn't ask them to stop and I didn't know how long it would go on for and that was really unpleasant' (P39)

The quotes below suggest that actions that can be taken to increase the feeling of control can be quite simple and indeed will represent routine practice for many dental practitioners. For some patients, these small elements of communication can make a big difference to how they feel.

'explain what's going to happen and how things might feel which makes me feel better. I find it helpful to know how long they'll be doing things too and when there will be breaks' (P13)

'Wish they would explain what was happening as they went along rather than waiting for the big reveal at the end' (P29)

6.2 | Shame

Feelings of shame were a major concern for many respondents. Most often, these related to fear of being judged in relation to their teeth. These feelings could be intensified if the dental team appeared to be judgemental in any way.

'You feel judged because the state of your teeth is entirely your responsibility/fault. You can't blame it on anyone else'. (P6)

For some, feelings of shame can be worsened by the dentist's behaviour as participants are quoted discussing below.

'Dentists are direct in their assessment of your teeth so you can feel judged if they are telling you there are problems'. (P6)

'always telling you what is wrong' (P14)

As well as potentially triggering shame by appearing to be critical, respondents recognised that the behaviour of dentists could help to minimise shame. Validating, reassuring and balancing information to include positive observations were all identified as helpful in this respect.

'Helpful when they tell you when you've looked after your teeth well so you know to continue with what you're doing and you don't worry as much about going there' (P32)

'helpful if they acknowledged that people are nervous or embarrassed about being there' (P41)

TABLE 4 Themes and quotes relating to concerns about attending for dental treatment and suggestions for improvement

| Theme | Quote |
|------------|--|
| Control | <p>'little time for reassurance and explanation which has increased anxiety and the feeling of unknown' (P24)</p> <p>'I think the issue definitely lies in the unknown' (P37)</p> <p>'fear of the unknown is a huge stress' (P36)</p> <p>'At the dentist I feel vulnerable' (P25)</p> <p>'felt like I couldn't ask them to stop and I didn't know how long it would go on for and that was really unpleasant' (P39)</p> <p>'The thought of not knowing what might need to be done can be anxiety inducing and this anxiety often leads to overthinking and catastrophising'. (P37)</p> <p>'explain what's going to happen and how things might feel which makes me feel better. I find it helpful to know how long they'll be doing things too and when there will be breaks' (P13)</p> <p>'I find it easier if the dentist explains what to expect before the appointment, and what they're doing as the appointment progresses, and arranges a signal for me to tell them to stop without having to speak' (P18)</p> <p>'Wish they would explain what was happening as they went along rather than waiting for the big reveal at the end' (P29)</p> <p>'dentist asks if you're nervous at the beginning it means that you start the appointment with everyone knowing where they stand' (P7)</p> <p>'I would appreciate a short chat prior to treatment to discuss any physical or mental concerns' (P40)</p> <p>'Helpful when they keep talking about what they're doing throughout the appointment' (P32)</p> <p>'quick chat would be settling, then when in chair helpful to be spoken to and kept informed' (P25)</p> <p>'patients feel more informed and therefore in control' (P7)</p> |
| Shame | <p>'You feel judged because the state of your teeth is entirely your responsibility/fault. You can't blame it on anyone else'. (P6)</p> <p>'my teeth are bad and I get judged' (P35)</p> <p>'Going to the dentist makes me wish I'd look after my teeth more' (P33) 'I always feel judged after a visit to the dentist' (P28)</p> <p>'Feel guilty that I do not maintain my teeth'. (P4)</p> <p>'judgemental and sarcastic' (P31)</p> <p>'my dentist kept "telling me off"' (P23)</p> <p>'she (the dentist) is the one who makes me feel tense because of her judgemental attitude' (P17)</p> <p>'Dentists are direct in their assessment of your teeth so you can feel judged if they are telling you there are problems'. (P6)</p> <p>'My dentist is a little condescending' (P9)</p> <p>'always telling you what is wrong' (P14)</p> <p>'Unhelpful when they're very critical of anything you do' (P32)</p> <p>'it's never acknowledged you are doing well with your teeth'. (P14)</p> <p>'Helpful when they tell you when you've looked after your teeth well so you know to continue with what you're doing and you don't worry as much about going there' (P32)</p> <p>'gentle conversation not a lecture' (P28)</p> <p>'appreciate an explanation of the teeth codes so I know if something is wrong/getting worse and then I can have the conversation with my dentist on how to improve any issues' (P34)</p> <p>'helpful if they acknowledged that people are nervous or embarrassed about being there' (P41)</p> <p>'It would be more helpful to look at any issues collaboratively to resolve them rather than alienating people with criticism' (P32)</p> |
| Discomfort | <p>'The experience is very uncomfortable' (P31)</p> <p>'It's really uncomfortable sitting like that for so long!' (P22)</p> <p>'the act of cleaning and polishing them during checkups can be quite painful'. (P7) 'Had a tooth removed which was very painful' (P38)</p> <p>'A less sterile environment in the dentists room. Not clinically but in terms of decoration and ambiance' (P6)</p> <p>'Relaxation techniques, a less invasive light, more time taken to ensure you're comfortable and have what you need' (P21)</p> <p>'soft music playing to relax you' (P3)</p> <p>'find it really soothing when I have my headphones on, playing loud music, so I can't hear the drill' (P36)</p> <p>'Music playing is a helpful distraction. Maybe suggest that the patient brings headphones with them to listen to their own music or meditation tracks while having treatment' (P27)</p> <p>'Music would help too and as I've recently had scans in hosp at radiology they had relaxing pictures on ceiling which really did help'. (P11)</p> <p>'Good to have something interesting to look up at on the ceiling when tilted back as this may prove a useful distraction' (P30)</p> <p>'My dentist sometimes has the radio on and I find that a great distraction'. (P15)</p> |

(Continues)

TABLE 4 (Continued)

| Theme | Quote |
|------------------|---|
| Long-term impact | <p>'When I was very young (5!) I had a very bad experience' (P16)</p> <p>'When I was a child going to the dentist was very painful and unpleasant' (P27)</p> <p>'had a lot of painful experiences as a child with a mocking and rough dentist. So much so that the taste of mint brought me out in a sweat and panic' (P21)</p> <p>'visiting the dentist still makes me think about bad experiences of visiting the dentist as a child' (P24)</p> <p>'The extraction was horrific and something I will not forget' (P34)</p> <p>'experienced dental treatment without local anaesthetic during my childhood, the resulting fear has lasted all my life' (P26)</p> <p>'bad experience with a dentist increased my anxiety'. (P1)</p> <p>'The dentist put the cement in my mouth and left me in the room by myself. I panicked as I felt I was choking, I ran out of the room to find the dentist and this experience as terrified me'. (P5)</p> <p>'For the next 17 years, I wouldn't go on my own, and was always tense/upset' (P16).</p> <p>'Lack of trust generated' (P10)</p> <p>'bad experiences have made it difficult for me to trust dentists' (P42)</p> <p>'She (the dentist) has made it difficult for me to trust dentists'. (P2)</p> |
| Cost | <p>'Cost of dentist is so huge even for minor work' (P10)</p> <p>'cost of going to the dentist is becoming ridiculous and putting many people off'. (P20)</p> <p>'The most worrying thing for me is the potential cost, should I need treatment' (P12)</p> <p>'I don't want to raise issues as it might be very expensive to put my problems right' (P9)</p> <p>'The cost - one of the main reasons I put it off!' (P22)</p> <p>'Worry about the cost' (P19)</p> <p>'cost are the main issues today' (P43)</p> <p>'Cost is by far the biggest stress and biggest barrier with the dentist' (P8)</p> |

6.3 | Discomfort

Discomfort and pain were recognised as difficult experiences when attending a dental appointment. For some, this was less about the dental treatment itself than other features of the environment such as the length of time they needed to stay still. A number of participants had ideas of how to deal with this aspect of treatment, including a wish to use and be supported in distraction.

'The experience is very uncomfortable' (P31)

'It's really uncomfortable sitting like that for so long!'
(P22)

Respondents suggested that they found it helpful to be distracted from the discomfort of dental appointments. The quotes below are suggestions from participants of ways to be distracted.

'find it really soothing when I have my headphones on, playing loud music, so I can't hear the drill'
(P36)

'Good to have something interesting to look up at on the ceiling when tilted back as this may prove a useful distraction' (P30)

This implies that participants find distraction from what is happening in the dental procedure useful and comforting.

6.4 | Long-term impact

Several respondents mentioned experiences of dental visits in childhood that had been traumatic for them. Often when this was mentioned, the impact had remained with them as fear even into adulthood and old age and had consistently interfered with their ability to tolerate dental appointments.

'When I was very young (5!) I had a very bad experience for the next 17 years, I wouldn't go on my own, and was always tense/upset' (P16)

'visiting the dentist still makes me think about bad experiences of visiting the dentist as a child' (P24)

Due to these negative experiences, it led to decreased trust in the dentist and a long-term impact on respondents.

6.5 | Cost

Cost was the final theme identified, which appeared to be an issue for many participants. For some, this was related to fear of not being able to continue with a trusted dentist if they became unable to pay privately for treatment. Others were less trusting and worried that a dentist may take advantage and recommend unnecessary and costly treatment. Fear about the cost of treatment also added to the anxiety of not knowing what a dentist was thinking during an examination.

'The most worrying thing for me is the potential cost, should I need treatment' (P12)

'I don't want to raise issues as it might be very expensive to put my problems right' (P9)

The themes generated from each part of the survey are illustrated in Figures S1 and S2.

7 | DISCUSSION

From the perspective of adults in the general population, this study indicates that elements of uncertainty, lack of control and shame were important considerations for people in terms of dental appointments. Concerns about pain were also apparent but were not the primary issue for the majority of the sample.

These findings align with previous research^{6,7,12} that feelings of embarrassment, lack of control, unpredictability and absence of a warm relationship with the dentist were important contributors to dental anxiety. They add weight to such factors being of concern not only to people experiencing dental anxiety but also to those who are not currently dentally anxious. They are also consistent with recent research into barriers to dental attendance,^{10,18} which highlights how a range of factors can interrelate leading some people to feel vulnerable, ashamed and out of control when considering a visit to the dentist.

Simple suggestions that were generated to address these concerns include some that are common in the dental literature such as explaining to patients how they can ask for a pause in treatment.¹⁹ They also include ideas such as being sure to describe the condition of all teeth to reduce the likelihood that dental patients, who might be experiencing heightened sensitivity in an appointment, feel that they are being told off or shamed or that they are at fault for not looking after their teeth better. This is in alignment with the results of a recent systematic review¹⁸ and confirms the relevance of these findings to a sample with a wide age range.

The findings also support previous research that outlines fear of pain as an important aspect of dental anxiety²⁰ and confirm that these concerns are true also for a general population, including people who do not report dental anxiety. Findings also highlight the potential long-term impact of traumatic or fearful experiences of dental treatment, with several respondents reporting a benefit of dental teams remaining sensitive to the needs of every patient.

Respondents had a range of concerns and experiences. In keeping with previous recommendations,⁸ we suggest that dental teams listen carefully to each individual in order to understand their preferences and needs. Taking the time to ensure a patient remains comfortable and secure at the time of an appointment is likely to have benefit not just within the current appointment but for many future appointments also.

The finding that many patients are concerned about the cost of treatment is also interesting. It is not clear from the results of this survey whether the issue for these respondents is the actual cost of treatment or their perception of how expensive dental care might be. While there may be nothing that dentists can do about the actual

cost of treatment, a clear and accessible method of communicating about different costs and payment options may be helpful.

There are several strengths to this study. The first is that questions were generated from the perspective of members of the public who were dental patients. This approach allowed us to consider a range of ideas that are important from the perspective of people attending dental appointments, some of which have not previously been highlighted in the dental literature. The mixed design also allowed respondents to express their ideas and experiences without being constricted by predetermined response categories. A further strength is the use of a sample that included all adults regardless of whether they experience dental fear. The inclusion of suggestions from this sample has generated a range of interesting ideas that we hope will be of practical use to dental care professionals.

The research is limited in its relatively small sample size and lack of representativeness of this sample. In using groups of students, business owners and recyclers, we aimed to reach a varied sample of the UK population. Further research with a larger and more representative sample would be needed before findings could be generalised. However, some of the findings could be implemented without risk (eg discuss the condition of all teeth) and this may be worthwhile regardless of the sample limitations. Although the survey captured a wide age range from 18 to 82 years, the imbalance of gender with 84% of respondents being female may have skewed the results and these may be less relevant for males and people with other gender identities. The very low ethnic diversity of respondents, with 92.57% identifying as White, is a clear limitation, and it should be noted that the results of the survey therefore do not reflect the diversity of the UK population. This should be borne in mind when interpreting the findings. For example, only 2.08% agreed that they were concerned about whether their cultural needs would be adequately addressed at dental appointments. However, this represented a much higher figure of 28.6% of respondents from ethnic minorities.

In terms of implications for practice, some of the suggestions made are quite straightforward and could be immediately integrated into routine dental care. The research highlights the importance of both strategies that are already routine in many dental settings, such as friendly conversation at the beginning of an appointment, explaining the procedure and dental equipment and the importance of good oral health. It also adds new patient-led suggestions. Specific examples given by participants include explaining dental terminology used in conversations between the dentist and dental nurse and integrating information about treatment needed within a wider context that includes the good news about teeth that are healthy. They also include the suggestion by patients that it is helpful for dentists to ask at the start of an appointment about dental anxiety or other concerns and how they can help, which supports previous research into the importance to patients of doing this.^{21,22}

This research was carried out on a small scale, and it would be useful to replicate the findings with a larger and more representative sample. It may also be interesting to determine whether views and experiences are influenced by sociodemographic factors such as income, previous dental history and travel distance to a dental

provider. Additional research could also explore the concerns of patients at the point of attending dental appointments and impact of some of the suggestions at a practice level.

8 | CONCLUSION

This research indicates that there are a number of issues that are of concern to people when considering a dental appointment. Of these, psychological and emotional factors such as control, shame and trust are very important and for many people are more anxiety-provoking than fear of pain. This is important because most research and interventions up to now have focused on addressing fear of pain as the main approach to dental anxiety. Some of the concerns expressed can be addressed by relatively straightforward means that can be easily introduced into current practice.

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AUTHOR'S CONTRIBUTIONS

HC conceived and planned the study, carried out data collection, performed analysis, discussed the results and contributed to the final manuscript. CC planned the study, discussed the results and contributed to the final manuscript. CP conceived and planned the study, supervised data collection and analysis, discussed the results and contributed to the final manuscript.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

Data are available on request, due to privacy and ethical restrictions.

ORCID

Hannah Calladine  <https://orcid.org/0000-0002-0970-0340>

Charlotte C Currie  <https://orcid.org/0000-0001-6297-8600>

Chris Penlington  <https://orcid.org/0000-0002-2695-7041>

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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