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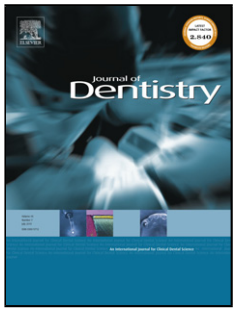

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A qualitative study to explore what reduces fear of root canal treatment for dentally anxious people

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Abstract

Objectives: To explore fear/anxiety inducing triggers associated with dental treatment, and what dentally anxious adults would like from their dental encounter.

Methods: Two focus-groups and three interviews with fourteen dentally-anxious people were conducted in this qualitative study. All discussions were tape-recorded and transcribed verbatim. Content was categorised by common characteristics to identify underlying themes using thematic analysis.

Results: Four themes were identified to bring general meaning within the content: 1. Preparedness, 2. Teamwork, 3. Reinforced trust, 4. Tailored treatment plan.

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Conclusions: Preparatory information may need to be tailored and comprehensive, yet dissociative and reassuring. Dentally-anxious people might want a sense of control and shared-decision making. They may not want dentists to understate the treatment procedures and risks to make them feel better temporarily.

Clinical significance: Dental anxiety affects between 10-60% of the population. Participants in this study suggested different ways the dental team could help their anxiety but these were particular to each person. Therefore, it is key for whole dental team to learn how to find out what could be done to help for each dentally anxious patient.

Keywords: Dental anxiety, Dental fear, sense of control, Qualitative research, Preparedness, Shared decision making

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1. Introduction

Dental anxiety may directly affect the oral health and indirectly increase the burden of dental treatment. Several studies have reported a prevalence level relating to dental anxiety of 5-60% worldwide amongst adults [1-5]. The variation seen in reported prevalence data could be due to the differing severity of dental anxiety. Mild dental anxiety may result in disruption to regular attendance whilst in a more severe form may result in patients having never visited a dentist [6]. The literature shows the detrimental effect of this with worse oral health and oral hygiene in more dentally anxious patients [6]. Also due to delay in seeking treatment dental anxious patients often present with poorer oral health resulting in poorer prognosis for restoration resulting in more extractions. The worsening dental procedures may further aggravate their fear [7,8]. Moreover, the cost of further restorative treatment for the extraction site may be higher, and such costs disincentivise patients further from seeking dental care and can also affect people's overall confidence [6], and therefore the quality of life [9]. Therefore, the impacts of dental anxiety are far reaching and of economic impact as well as a person's well-being and this is a major public health problem.

Previous studies into the treatment of dental anxiety have neglected the role of patient in their design [8,10] and with gaps identified between dentists' and patients' perceptions of fear [6]. Hence, a focus on patients' preferences is needed. To better explore

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the patient perspective a qualitative method is most appropriate to understand what factors contribute to dental anxiety. The aim of this qualitative study is therefore to explore with dentally anxious adults (i) what are the triggers that exacerbate the fear/ anxiety associated with dental treatment, (ii) what could reduce these anxiety triggers towards dental treatment.

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2. Methods

2.1. Recruitment of participants

A purposive sample of self-identifying dentally anxious adults was recruited from the University of Leeds either via a poster invitation or using snowballing. The Modified Dental Anxiety Scale (MDAS) [11] was used to quantify the anxiety level of the participants [12] and confirm those who might be dentally phobic were willing to participate discussion (Table 1). Data analysis and collection was concurrent and so recruitment ceased after no additional information was generated and data saturation reached [13]. Ethical approval was obtained from the University Dental Research Ethics Committee (DREC:110416/MCW/199).

2.2. Tool development

A topic guide for the focus groups was developed based on a literature review [8,14-17] and moderated by a clinical dentist with qualitative research training (MCW). As studies have shown that most dentally anxious people might be more afraid of root canal treatment (RCT) than other dental treatment [7,8] we opted to include questions relating to RCT specifically. Additional resources such as pictures of RCT in cartoon, X-rays and pictures of real teeth were used in the focus groups as some participants may not

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have had RCT experience. The topic guide was piloted with six people who included an experienced qualitative researcher (KVC) to ensure the questions were clear and facilitated discussion.

2.3. Data collection

Two complementary qualitative research methods were adopted in this study. Combining focus group and interview was utilised to bring out a more diverse range of the participants' thoughts [18]. Focus groups are suitable to generate opportunities for participant-led content exploring issues related to anxiety and dental treatment which some participants may not have thought and perhaps the ideas which have not yet addressed in the literature before [19]. However, anxiety may make participants feel embarrassment or reluctant to engage in focus groups, and individual interview is suitable for sensitive issues [19]. Besides, participants who were hard to recruit in focus groups could be interviewed to include their ideas [20].

Two focus groups and three interviews were undertaken with fourteen dentally-anxious adults (11 Women and 3 Men aged 18-49 years) each was audio-recorded, anonymised and transcribed verbatim. Two focus groups took two hours each, and interviews were one hour each. The settings for focus groups and interviews were on university premises and non-clinical to minimize any potential for anxiety [18].

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2.4. Data analysis

All focus group and interview transcripts were analysed using thematic analysis [21]. The codes-to-theory model for qualitative inquiries was used to demonstrate the analysis process from codes to themes [22] and presented as figures and mind maps. Analysis was undertaken in Microsoft Word. The coding was done by first author (MCW) and agreed with a second researcher. The themes were derived from the data and the synthesis of the thematic map was achieved by all four authors to reduce the interpreter bias from the first author (MCW) [9,23]. Taking into account the possible bias introduced during analysis by the researchers themselves, member-checking was undertaken with one participant from each focus group. This was done with initial themes emerging from the data rather than the actual transcripts [24,25], and this might increase the validity of the analyses [17,25,26].

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3 Results

3.1. Overview of the results

Four themes were identified preparedness, Teamwork, reinforced trust, and tailored treatment plan. The sub-themes and illustrative quotes in these four main themes are outlined in Table 2.

3.2. Main theme 1: Preparedness

All participants wanted to prepare themselves for the treatment process and more information including understanding RCT regardless of whether or not they had received this treatment was called for.

Participants outlined that 'unexpected' events or activities occurring whilst in a dental consultation increased anxiety.

[Ian] … The surprise is the worst anxious bit. Like the waiting when you're not kind of sure… that's stressful and they just get to work in your mouth and that's… yeah I think the information would definitely help.

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The participants outlined that is would be useful to have a reminder of what they have discussed with the dentist. As anxious patients they did not always fully comprehend the dentists' explanation at the time so they thought that pamphlets or booklets to read at home may help.

> *[Fiona] because on a dental chair I forgot what I want to say. I'm just like oh my god this thing is actually in my mouth so I would rather prefer a booklet and if I read it, I would know what I want to ask him, I'm ready with my questions so that if he's talking to me, even if I'm not listening to him, I know what my questions are and I know what answers I need.*

Although all participants were interested in knowing the causes and procedures of dental treatments, they did not want to see pictures of real teeth. They suggested X-rays or illustrated teeth to be less anxiety-inducing resources. Participants discussed the use of the colour red causing an 'anxiety-trigger' due to its association with blood.

> *[Frederica]* I think both of the styles (cartoon and x-ray) - cartoons for the children and x-ray for adults because you know what… they're going to do
>
> *…*

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[Febe] That's (picture with real teeth) similar to stuff I've seen online with all that, it's just looks terrifying to me.

[General group] 'Like torture'

[Febe] I'd rather not see (picture with real teeth).

The participants suggested that they did not want dentists to explain the procedure with a mirror; they felt that seeing their own teeth in the mirror or in the demonstration was a trigger for unease. One way of dental team members explaining a procedure is to use a technique called Tell-Show-Do (TSD) where dental team uses real instruments to demonstrate the process the patient will experience. One participant outlined her experience of TSD related to RCT and suggested the instruments being in such close proximity to her prior to the procedure commencing triggered an increase in her anxiety levels. She outlined that the instruments should be kept at a distance, away from mouth, during the TSD demonstration to help her manage her anxiety levels, this was also welcomed by the whole group.

[Iris]: he picked the needle up….[from] the small box you know…It is scary as well because I imagine like, oh my God, that kind of thing will go into my teeth so, yes, sometimes it's comfortable because he mentioned it, the function of the tooth, but it doesn't mean that it will reduce your anxiety.

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[Researcher] … hiding the instrument it's quite easy with our hand gesture so I only tell you, ok this one, because it's not that close to you..?

[Iris] I think this is better.

Participants recalled that they searched for information on the internet to help them understand what they may experience, but found it difficult to assess if the information was accurate. Participants wanted information coming from dental sources or for their dentist to recommend useful websites.

[Iris] because Googling by yourself, without having sufficient knowledge, will lead you to false information and you don't have an expert to confirm if all the information that you read on the website is correct or not. So, when it comes from the experts itself, at least you can convince yourself it is reliable information.

3.3. Main theme 2: Teamwork

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Participants wanted treatment planning to be undertaken with the dentist (and their team) and them so that they were part of that decision making process. They reflected that this supported feelings of control and confidence and reduced anxiety related to treatment, they did not want to passively receive dental treatment.

> *[Irena] … Every patient wants that partnership with their health professional… also every patient wants to feel that 1) the doctor knows what he is doing and understand the condition they have and can explain it to them; but 2) the doctor knows how to get them to see how they can contribute…*

Participants outlined the key roles that dental hygienists and nurses played within the dental team and that these members of staff were ideally placed to help to explain information. However, this role did not extend to reception staff who were seen outside of the clinical team (Table 2).

> *[Irena] I want a professional who knows that can give me information I trust, not a receptionist, no, I might be able to Google it and find out too but I want a health professional who knows slightly more than I know and who I can trust.*

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3.4 Main theme 3: Reinforced trust

Most of the participants wanted the opportunity to bulid up a relationship with their dentist, they felt this would enhance their trust and increase their confidence in the dentists' treatment and advice.

> *[Irena] we have developed a relationship where I completely can trust him with my teeth, so in that case if he says that he would choose a root canal I am tempted to go for that root canal.*

Participants did not want dentists to replace 'anxiety-triggering' words which describe dental procedures. They wanted the exact dental words and for the treatment not to be understated or 'sugarcoated', this they felt reinforced trust.

> *[Irena] … I do want the truth, but it would be nice after using the word "drilling" to explain it in a way that calms me down… Something to try and just calm down the fear of this word because this word will definitely trigger fear in me when I hear drilling in my tooth… I do want to hear them because not telling me might mean that I am not getting the real picture. I do want to know that my treatment involves this but, at the same time, it would be nice after telling me that to sort of explain it in a way*

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that makes me understand it in my own English, I am not a Dentist… able to understand it for myself so that I can work around it in my mind.

When asked if words such as 'drill' increased triggers of anxiety there was a debate about how this should be related to the patient.

[Fergal] I like tooth drill

[Fernada] Tooth cutting maybe

[Flo] Tooth cutting?

[Fernada] Restructuring?

[Fergal] Basically lying about its purpose then

[Ian] He's going to numb me now and I see the needle coming, I'd really hate that. I just want to know what's going to happen basically.

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Many participants also mentioned that they want the exact prognosis even if the prognosis was poor. They knew they might feel anxious when they first heard the bad news, but in the long term this would reduce their anxiety levels.

[Irena] knowing the failure rate before trying the treatment.. and the failure rate is very high…I am going to be anxious because I am thinking that it might not work for me. Ok, but after the treatment, if it doesn't work it's not going to cause me more anxiety because I knew this was going to happen.

[Researcher] So even if its 20% I don't have to hide it a little bit because you know your face you will show your anxiety when you see the Doctor. The Doctor will tell that immediately but according to human nature I would tell you it's a little better to make you feel better.
[Iris] No, you can tell the truth but the way you tell that will make the patient take the bad news differently.

Participants wanted the right to postpone procedures, some participants felt if this option was available to them it would lessen their anxiety levels. Trust was also raised as an issue related to whether that the dentist would stop during treatment if requested by the patient to do so, they suggested this would be one was to reduce their anxiety if this option was available to them (Table 2).

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[Researcher] … the other information they want is to have a sense of control.

[Iris] Yeah, yeah. *Can we just stop for a little bit?*

[Researcher] But I give you the other information on the pamphlet saying during the process you can stop the Dentist.

[Iris] Yeah, yeah it will reduce my anxiety as well.

[Fifi] The control that you have, the control over the treatment so you can stop it at any time that you want

The participants also felt that dentists and their teams had a role to play in recognising anxiety as a barrier and recognising that they had a role to play in the patient's anxiety management and anxiety triggers.

[Ian] Yes it does make me feel better that does means it means like I feel I feel silly of worrying if I know half every other person who go into the clinic feel anxious, not half of all people have bad experience. It must be it must be not founded really.

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Participants wanted to be reassured by the dentist and the team that there was no need to feel embarrassed about their anxiety, and it is normal and common to have dental anxiety. They felt that dentists could enhance the dentist-patients relationship if their dental anxiety was acknowledged and managed in partnership with the team.

3.5 Main theme 4: Tailored treatment plan

Participants wanted to know about the discomfort they may experience during or after treatment, the cost, treatment time, how many appointments they would need to complete the treatment, all of these factors were acknowledged as possible ways to reduce their anxiety levels. They wanted to know the risks, benefits, and prognosis related to their oral health, including the prosthesis after RCT. Therefore, the alternative of RCT is not extraction alone; it should combine with implant and crown or bridge, and all the rest of information needed to include both of these sets.

[Fiona] … it is a very personal thing really, trying to tailor it to whoever is sitting in the chair

[Ian]… I would view that as one process (RCT and crown), the root canal. If I have to come back to the recurring for one problem in my mouth, I'd view that as kind of one treatment.

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[Farah] … it actually being really painful to like keep my mouth open for that long. Like if I ever had to have a root canal I don't know if I would be able to do it. I think my jaw would get stuck, so that's sort of worries me a lot.

[Researcher] give you a little rubber block … to keep it open

[Fanny] I have tried that before but I don't like it.

The availability of treatment options could reduce anxiety levels somewhat, but not treatments have an alternative solution.

Participants wanted their dentist to show sympathy, understanding and patience towards them, they felt this would help them through the treatment process.

[Fifi] His whole personality, like he understood straight away. We told him, I've come because I have had a bad experience and all this. And he was like, he was just completely different, He was saying, of were doing work and you don't feel comfortable we can stop, we can put a dressing in and come back a different day. I never had this understanding before. He doesn't do anything without telling me what he is going to do. The way he even sat. He sat next to me and not behind me

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when he was looking in my mouth, which made a massive e difference actually… The staff are nicer and everything so yeah, it does make a difference. Even the receptionist, like it does make a difference, so yeah

In order to reduce patient's anxiety, the options need to adjust according to patients' personal needs. Dentists might need to be patience and understanding to help them go through the anxious procedures.

[Irena] A root canal sounds like a very fearful thing and so I want the doctor to show the human face through that process.

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4 Discussion

Providing preparatory information before invasive medical procedures could be effective in reducing patients' anxiety and complaints and enhancing the success of treatment in many medical specialties [27,28]. It has also been shown that providing information to patients can help dentally anxious people prepare for treatment and in turn this reduces anxiety levels. This approach could be managed by general dentists without psychological training [8,16,29]. One example of this may be root canal treatment (RCT), which has been suggested to be one of the most "frightening" dental treatments [10-13], due to the perceived association of being painful [8]. Some patients would rather choose tooth extraction than root canal treatment which can preserve natural teeth. Nevertheless, studies have shown that the actual pain and discomfort experienced by the patient when having RCT is much lower than expected and less than extraction [7,8]. Patients who were nervous about RCT had often never experienced RCT before [8]. It may therefore be suggested that anxiety towards RCT may be based on incorrect health beliefs rather than previous experience. Hence, giving positive information of the sensations experienced in endodontic treatment has demonstrated that the fear of pain could be reduced [8]. Nevertheless, there are not enough studies addressing what else may be needed to include in the preparatory information about RCT. Therefore, this research was designed to specifically address on RCT in addition to other dental procedures.

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In this study, all participants wanted the preparatory information in dissociative forms. They preferred procedure diagrams which could be in the form of cartoons or X-ray rather than pictures with real teeth. One participant who had experienced tell-show-do (TSD) in her RCT wanted the TSD to be far away from her mouth. Many participants without TSD or RCT experience also agreed with this idea which was in contradiction to the behaviour management technique in paediatric dentistry [30,31] and cognitive behaviour training (CBT) [32,33]. It is intriguing that TSD has been used for anxious patients [30,32,33]. This perhaps could be explained by the negative and incorrect belief which was common among dentally anxious patients [8,34]. Besides, avoidance is a frequently-seen trait on these patients, and these participants might not really want what they have said. Further studies may be needed to explore whether the anxiety towards TSD is true or not, and should we avoid TSD for some dentally anxious patients. Furthermore, the differences between TSD and graded exposure might also need to be clarified and further studied since graded exposure has been proved to be effective in controlling dental anxiety [2,29]. However, our participants did not address graded exposure in their discussion and this was an intriguing idea worth further analysing.

In clinical practice, knowledge about the high prevalence of dental anxiety is widespread [1-5]. However, this issue was not routinely discussed with patients in clinical practice, and not addressed in our two focus group sessions. However, in the first one-to-one interview, the male interviewee was much relieved after knowing almost half of population also has dental anxiety as he did. His

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feelings of shame made him do not want to expose his anxiety in front of his dentists and others which might make him speak little if he was in the focus group. Some people especially men might be more comfortable to expose their anxiety in private session [35]. His idea was agreed with two other participants (Table 2). Previous studies have also highlighted that dentally-anxious patients often feel shame or embarrassment regarding their dental anxiety [17,36] which is supported by the findings presented here. A 'Social Norms' [37] approach to raise awareness amongst patients of the prevalence of dental anxiety could be adopted in future interventions to modify their behavior and beliefs than merely providing treatment information [37]. This research has highlighted that people experiencing dental anxiety may need this additional reassurance. Considering perhaps more than half of the population may have dental fear globally [1-5], creating a friendly environment towards dental anxiety may be an effective method [37].

Providing factually accurate information was deemed important to participants and coupled with health promotion interventions has been shown to support behaviour change [37,38]. Participants expressed the need to prepare themselves for the 'unknown' within the dental treatment interaction. This concept of disempowerment and panic [17], is common and it is suggested that giving patients information about the actual steps and sensations could increase their sense of control this reducing their anxiety levels [10,17], especially in long treatment procedures such as RCT [10]. Mistrust of dentists has always been a trigger of dental anxiety

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[17,39], and can be seen within this study as participants expressed they were not sure if the dentist would stop during the treatment when requested to do so by the patient.

Participants in this study identified their own role in treatment planning ('Teamwork)' and did not merely want to be passive recipients of treatment. Participants wanted to take part in the planning over their oral health to enable them to take responsibility of their own mouths. One participant felt this joint decision making process would reduce their anxiety. The concept of 'teamwork' was also explored within the dental team. The participants understood the preparatory information may be explained by other people from the dental team, but they did not perceive receptionists as health professionals as they might not have clinical training and the knowledge in patients' own view.

4.1. Validity and Reliability

The reliability of the data within this study was enhanced by collecting data from different types of people [35]. Although all participants were highly educated, we tried to include individuals from different sex, academic backgrounds, age and dental experiences to gain the diversity of perspectives. The data from focus groups and interviews were coded separately. The data could be combined and form final themes together. During all discussion sessions, the researcher also confirmed the ideas with the participants directly to

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achieve interpretative validity [26,40]. Further, member checking was also used to enhance the validity through one participant from each focus review the analysis and validate the findings from previous focus groups.

The coding was done by the first author (MCW) who was a clinical practitioner, but none of the participants were her patients, and the data did not show in their medical records. However, in recognition of possible unconscious bias on the part of the researcher, a second experienced qualitative researcher (non-clinician) aided by reviewing the analysis and where they disagreed a consensus view was reached through whole coding process. The derivation of the themes was done by the cooperation of all four authors to further enhance the analysis.

4.2. Limitations

Whilst efforts were made to gather diversity of participants with regards; age, sex, ethnicity and previous dental experience, due to recruitment posters being displayed at the University of Leeds the socio-economic demographic is unfortunately swayed and not representative of a generalized population. Participants were categorized into a low, moderate or high anxiety status (Table 1), it was hoped that this differentiation would show some differences between these participants. The analysis did not show any variation between these participants and this may be due to the number of people within the study (N=14), and there were no participants with

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low dental anxiety in the recruitment. Whilst we aimed to explore the triggers that exacerbate fear in patients, the discussion did not seem to explore this facet in detail. This may be due to 'triggers of fear/anxiety' not being an issue for these people or indeed the researcher did not probe the group in a sensitive way to explore these features. It would therefore be useful for future research to consider this element as it was anticipated that it would be a central part of this research. It is therefore with caution that the results here are regarded as an early exploration into the area of dental anxiety with some suggestions for future research to build upon some of the findings with this group.

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5 Conclusions and clinical implications

This qualitative study aimed to explore with dentally anxious adults the triggers that exacerbate the fear/ anxiety associated with dental treatment and the approaches that could be adopted to reduce these. Dentists and their teams could help patients to prepare themselves for dental treatments including RCT, this may however ay require psychological training to support dentally-anxious patients. This training and education could enhance the dental team's understanding of dental anxiety in patients and support the management of such patients. Reinforced trust was revealed to be an important aspect of the dentist-patient relationship, these dentally anxious patients reported wanting to trust their dentists and themselves to make decisions according to personalized conditions. These findings, perhaps are not suitable to generalize to a wider population, since all the participants were highly educated and had higher socioeconomic status. However, these findings may have implications to help other people to cope with dental anxiety.

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This study may benefit not only the dentally anxious patients but also their dentists. Since the dentally anxious patients may also make their dentists anxious [12], if our suggested concepts are applied in clinical practice and education, the anxiety of dentists might decrease simultaneously. Further research may be needed to support these assumptions.

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Table 1 Demographic data of all participants.

	Pseudonym	Session	Sex	Age bracket	Health Professional	Regular dental visit	Last visit	RCT hx.	MDAS score	Anxiety level
1	Fiona	FG 1, MC 1	F	18-29	Y	Emergency	1-2 yrs ago	N	21	High
2	Flo	FG 1	F	30-39	Y	Never	Never	N	19	High
3	Fatima	FG 1	F	18-29	N	Occasional	1-2 yrs ago	N	20	High

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4	Febe	FG 1	F	18-29	N	Occasional	< 6 mos ago	N	11	Moderate
5	Frederica	FG 1	F	30-39	Y	Emergency	1-2 yrs ago	Y	14	Moderate
6	Fergal	FG 1	M	40-49	N	Regular	< 6 mos ago	Y	15	Moderate
7	Fifi	FG 2, MC 2	F	18-29	N	Regular	< 6 mos ago	N	16	Moderate
8	Frida	FG 2	F	30-39	Y	Occasional	6-12 mos ago	Y	13	Moderate
9	Fanny	FG 2	F	30-39	N	Emergency	6-12 mos ago	N	22	High
10	Farah	FG 2	F	18-29	N	Regular	< 6 mos ago	N	18	Moderate
11	Fabian	FG 2	M	18-29	N	Regular	6-12 mos ago	N	15	Moderate
12	Ian	I 1	M	18-29	N	Emergency	< 6 mos ago	N	17	Moderate
13	Irena	I 2	F	30-39	N	Emergency	< 6 mos ago	N	14	Moderate
14	Iris	I 3	F	30-39	N	Regular	6-12 mos ago	Y	21	High

* FG for Focus Group; I for Interview; MC for Member Checking
* F for female; M for male.
* Y for yes; N for no.
* The rules of the pseudonyms are: ‘F’ initial names for participants of focus groups. ‘I’ initial names for participants of interviews. ‘Fi’ initial names for participants of focus groups and member checking.
* MDAS for the Modified Dental Anxiety Scale and anxiety level [11, 12]. An MDAS score of between 5 and 9, indicating low dental anxiety. An MDAS score of between 10 and 18 indicating moderate dental anxiety, and a score of 19 or more which suggests high dental anxiety.

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Table 2 Main themes and sub-themes

Main theme 1: Preparedness	
Sub-themes	Quotes
● Fear for the unknown: Help people prepare for treatment process	*[Flo] I think in terms of the steps you go through I think it's ok to tell me so I anticipate them and I am aware this is going to come next after this, at least so that I am prepared.*
● Timing of information: Want to have the information before decision making	*[Iris] Before (the treatment)…Then you can decide whether you want to go further or not or you can anticipate what will happen during the treatment*
● Forms of information: Booklet may help anxious people to remember the information or look it up later.	*[Fiona] he can give me information or whatever… maybe a booklet ….however possible to reduce my anxiety… before we actually enter the clinic, if I am given to read what is going to happen to me, so I am mentally prepared. And whatever doubts I have and whatever concerns me, I can actually go to the dentist and ask him what exactly would.*
● Dissociative description: Don't use too vivid explanation ways	*[Fifi] I would want to see the x-ray… But the cartoon would also do the job.* *[Farah] I don't like it (real tooth picture)… even in the waiting room when they put a before and after picture. I am like no. I don't want to see any real pictures.*
● Prevention: Prepare for other teeth; prepare for the future	*[Febe] the booklet had the information about prevention and how to look after your teeth so you don't have to go back there again or have another root canal or filling.*
● Sources of information: Websites prepared or recommended by dentists are preferred.	*[Ian] I'm a bit of a slow reader. I prefer to go through things on my own… I think it would be best if they told me something (websites) and I could go look it up myself as well.*

ACCEPTED MANUSCRIPT

● Dentists need training to understand anxiety	*[Fifi] some see patients with anxiety as wasting their time… they don't understand it… I think that all dentists need training in anxiety stuff with patients.*
Main theme 2: Teamwork	
Sub-themes	Quotes
● Shared decision making: Decide treatment plans with their dentists	*[Fiona] if given the options, tailored and comprehensive options, and tells me why he (dentist) is doing whatever he is doing and he can answer my concerns and give opinions on what he thinks about it… I feel I am equally taking part in the decision.*
● Shared responsibilities: Take care of their teeth with their dentists, as a team member to improve their oral health and this can prevent their fear of having RCT again.	*[Irena] When he (dentist) is taking me through that process I become more cautious about my teeth and I need to personally take care of it… I begin to take care of my tooth, my tooth hasn't decayed as fast as it was previously which means that I am not seeing him too often… it is me protecting my teeth.*
● Dental team: Dentists, hygienists, and dental nurses, but not including receptionists	*[Fifi] If they're dental nurses then yeah (can discuss treatment), but if they're literally just Receptionists, they don't know anything about the dental stuff. No.*
Main theme 3: Reinforced trust	
Sub-themes	Quotes
● Dentist-patient relationship	*[Frida] For me it has to be the dentist because he is the one working in my mouth. I need to know, I need to trust that person*
● Transparent information: No need to 'sugarcoat' the words. Even if the prognosis is poor, dentists should be realistic about it.	*[Farah] I would rather someone not sort of sugarcoat it. I would rather someone just say this is what's happening so that I can make, because I would rather not underestimate it and think it's gona be… I'd rather know how bad it is going to be so that I can prepare myself. If they say ah its fine you know and then it's like… not then I think that would make it a lot worse.*
● Sense of control: patients want to confirm the dentist really give them this right	*[Fiona] I think when I'm uncomfortable, I raise my hand and he stops and he gives me a chance to speak up… it will reduce my anxiety to a certain limit because, until I actually experience it and I raise my hand and my dentist stops, only then will I*

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	actually know that he will stop… he did not see my hand raised or missed it, my anxiety might get more.
● Reassurance: patients want to know that other people also have dental anxiety which can be dealt with	*[Irena] … Because there are other people in the similar situation and they have been able to fight it and deal with it… I think it helps just to know that you are not the only one and also to know that because you are not the only one the health system has seen the problem before, the health system has dealt with it before so we are going to be able to deal with yours. So, to that extent, yes it helps to know that.*
Main theme 4: Tailored treatment plan	
Sub-themes	Quotes
● Tailored care: patients want to be assured that everyone's condition is different, and dentists can modify for them	*[Fatima] yes, it's good to be personal and communicate directly so like this may be different for me just let me know if they can change anything*
● Treatment alternatives: alternatives should be provided to make patients aware treatments can be different	*[Fifi] … offer the option of being knocked out while you worked one (RCT). So he offers the numbing cream as the first option. If you don't feel like you can deal with that he offers you some sort of gas. Buts that's meant to make you feel all happy and whatever. And then as a complete last resort he will actually offer sedation.*
● Personality: show sympathy, responsibility, patience, but patients may have personal preferences.	*[Iris] when you have a difficult information to digest, but if the information is done by somebody who cares and then maybe he uses a lower tone and making the pace slower. Like he speaks slowly then gentle, then all the information… it will reduce your anxiety and then you can feel like, yes, I want to do this treatment.*