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Types of Dental Fear as Barriers to Dental Care among African American Adults with Oral Health Symptoms in Harlem

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Abstract

To examine the types of dental fear experienced by African American adults and the role of these fears in the utilization of dental care, in-depth interviews were conducted with a street-intercept sample of 118 African Americans living in Harlem, New York City, who had experienced at least one oral health symptom in the past six months. Despite their oral symptoms, participants delayed or avoided dental care (often for years) due to a variety of dental fears, including fears of: 1) pain from needles; 2) the dental drill; 3) having teeth extracted; 4) contracting an illness (e.g., HIV/AIDS) from unsanitary instruments; 5) X-rays; 6) receiving poor quality care or mistreatment. These findings provide insights into the situations that provoke fears about dental treatment among African Americans and suggest strategies to address these fears in order to remove these barriers and increase the utilization of dental care by African American adults.

Keywords

Dental fear; dental care; pain; infection control; oral health; African Americans

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African American adults in the U.S. have been consistently found to have poor oral health. For example, African Americans have been found to report more tooth pain, tooth decay, loose teeth, and more lost teeth than White adults.[1-4] Indeed, oral health problems are the most common health complaint reported by African Americans in Harlem.[5] Despite the perceived need for care,[5,6] African Americans have low utilization of professional dental care in the past year and report delaying treatment for dental symptoms.[1,4,7-9] However, it remains unknown what cultural factors and psychosocial barriers may dissuade African Americans from utilizing professional dental care for their oral symptoms.[10]

Factors that might account for the less frequent utilization of oral health care by African American adults are fear and negative attitudes toward dentists and dental care held by African American adults. Among primarily Caucasian samples, dental fears and negative attitudes have been examined as potential barriers to the utilization of dental care.[11-14] In these studies, greater fear and more negative attitudes toward dentists and dental treatment have consistently been found to be associated with a lower likelihood of a recent dental visit, fewer dental visits, greater delay in obtaining care, as well as more missing and decayed teeth.[11-19] Indeed, some research has suggested that dental fear is a stronger predictor of

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poor oral health than structural factors such as income, dental costs, and insurance status.[12] Because African Americans have not been included or were poorly represented in most of the past research on dental fear (for a critique, see Butani *et al*.[10] and Hilton *et al*.[20]), the role that dental fears play in inhibiting oral health care for African Americans remains unclear.

Dental fear research has been critiqued recently because most studies quantitatively assess fear with single item or a small number of possible dental fears.[21] Consequently, they fail to examine the complexities of dental fear (e.g., types or sources of fear), leading some to argue that more research is needed on the specific types of situations that provoke dental fears.[21] Dental fears may be centered on a variety of facets of the dental experience including fear of pain,[11,22-23] fear of needles or injections,[11,14,19,22,24-26] fear of dental drills,[11,19,26] fear due to past negative experiences,[11,23,25,27] and fear of unsanitary practices or infections.[14,28-29] However, because nearly all the dental fear research uses samples of patients who presented for dental treatment, it leaves unanswered which of these types of fear serve as barriers to dental treatment.[21] Furthermore, given that fears often differ among cultural/ethnic groups,[10,20] the lack of research on the various fears held by African Americans leaves unclear what types of fears may serve as barriers to dental care among African Americans.[20] This also raises the question of whether current measures of dental fear adequately assess the specific types of fear felt by African Americans.

To address these issues, this report examines the types of dental fears that served as barriers to obtaining dental care among 118 African Americans living in Central Harlem. Unlike research that has used quantitative assessments to examine the level of dental fear or the prevalence of different types of fear anticipated by the researchers *a priori* (thereby potentially leaving out some unanticipated fears), the current report employed qualitative methods to elicit the fears that were most salient to a non-patient sample of African Americans experiencing oral health symptoms. As such, this study has implications regarding the content validity of current measures of dental fear for African Americans and provides insights that can be useful in the development of interventions designed to reduce these fears so as to facilitate greater utilization of dental care among African Americans.

Method

Sample

This report is based on a sample of 118 African American men and women living within the Central Harlem neighborhood of New York City. Eligibility required individuals (a) to have been born in the U.S., (b) to have parents who were both born in the U.S., (c) to self-identify as non-Hispanic African American, (d) to have lived in Central Harlem for at least five years, (e) to be at least 18 years old, and (f) to have experienced at least one oral symptom during the previous six months that lasted two days or longer. Further details of the sample, recruitment, and data collection procedures have been reported elsewhere.[30]

Demographic characteristics are presented in Table 1. Participants ranged in age from 18 to 79 years (M = 46, SD = 15). Consistent with the population of Central Harlem,[5] the sample was constituted of more women (59%) than men. The sample was generally of low educational attainment and income. The sample generally self-reported poor oral health (see Table 2). They reported an average of nine missing teeth, with 84% missing at least one tooth. Participants reported an average of 3.1 oral symptoms in the past six months (SD = 2.1, range 1 - 11).

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Procedure

To recruit and screen potential participants, a street-intercept method was used in which pedestrians were approached and requested to complete a confidential screening survey about their oral health. This survey was used to determine eligibility for an in-depth interview study about their oral health. The street-intercept method is an effective low-cost strategy for sampling a geographically defined population.[31]

Surveys were conducted in various locations throughout Central Harlem. The days and times for conducting the surveys were systematically varied to avoid potential bias. A staff member approached each potential participant who walked by, explained that they worked for the university and were conducting a confidential survey of dental health among residents of Harlem. Participants were also informed that the survey would take less than 10 minutes and they would receive a $2 fare card for the NYC subway for completing it. Individuals who were found to be eligible were invited to participate in an interview about their oral health at a later date. A total of 139 individuals were found to be eligible, interested, and were scheduled for interviews. Of these, 118 eligible participants completed interviews and were used in data analysis.

During the interview meeting, all participants provided signed informed consent before completing a brief interviewer-administered questionnaire to assess sociodemographic characteristics and oral health history. Next, they participated in a semi-structured focused interview[32] about their experiences with a single oral health symptom that they had experienced in the past six months and how they had managed this symptom. Among the questions asked in the interview were if the participant had ever considered seeing a dentist for his or her symptom or discussed the symptom with a dentist. Participants were also asked if they had a regular dentist, how satisfied they were with the care they received from dentists in general, and if they had any difficulties getting the dental care in the past. The full text of the interview guide is available, by request, from the first author. Interviews ranged between 90 and 120 minutes and were conducted by interviewers who had been extensively trained in the conduct of semi-structured qualitative interviews. Participants received $50 and were reimbursed for their transportation costs.

Data analysis

All interviews were audio-recorded and transcribed for analysis. Two researchers first independently read a subset of the transcribed interviews to identify the topics discussed. Next, they met to discuss the topics each had identified and constructed a single list of topic codes. Each researcher then independently evaluated this coding scheme by applying it to an additional set of interviews to determine if topics were consistent with those identified in the earlier cases or whether any additional topic codes needed to be added.

Two different researchers then applied this revised coding scheme to the full set of interviews using a qualitative data analysis software program, ATLAS.ti.[33] They were trained and supervised throughout the coding process to ensure consistency and accuracy. For the purpose of the current report, all text related to codes addressing professional dental care was read by two additional researchers to identify barriers to obtaining dental treatment. Detailed notes were taken on each barrier identified and common barriers were grouped together into themes. Fear-related barriers were particularly common, and these barriers are the focus of the current report. Quotes were selected that best represent the perceptions and experiences of the fear-related barriers described by the majority of participants.

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Results

Although all of the participants reported recent oral health symptoms and acknowledged the need to obtain treatment for their symptoms, many participants also reported delaying or avoiding dental care (often for years) due to various dental fears. Participants offered a variety of fears as reasons for not seeking dental care for their current oral health symptoms. Below we describe the specific types of fear that were reported as barriers to obtaining dental treatment.

Fear of pain from needles

Many individuals worried about going to the dentist because they anticipated pain during treatment. Fear of pain was the most common fear reported by the participants—specifically, fear of needles and the pain associated with the local anesthetic injections. For example, when asked what she worries about at the dentist, a 43-year old woman with a toothache told us she had not been to the dentist in over five years because:

> The needles. [Interviewer (I): Okay. Why do you worry about the needles?] I'm terrified of them darn things. I mean I'm not really worried about it; I'm just scared of them. I'm just scared of needles baby period.

Some participants associated needles with their fear of injection drug use. For example, a 19-year old man with bleeding gums told us about why he had a fear of dental needles and injections that had kept him away from the dentist for over five years:

> Because I don't like needles or injections. I don't like needles in my arms I don't really like that. I seen too many people shoot up, drugs all that, and it just reminds me of that. I don't like that. I don't like it at all.

Many of the participants who feared dental injections reported that the fear was the result of past negative experiences with dentists. For example, a 52-year old woman with a tooth sensitive to heat reported that she had had negative experiences with dentists in the past that left her fearful of the kind of pain they could inflict. As a result, she had not sought care for her current symptom and had never sought preventative dental care. She remarked:

> Well, I was scared of dentists...I don't like pain. I don't like needles either. [Laughs] I remember one time when I was younger, the first time I went to the dentist, and um, this guy, this dentist, I mean he didn't have no, no kind of sensitivity to my feelings, and he stuck the needle in my mouth... and he kept sticking it and I'm telling him don't do it no more, but he just kept doing it so I... left the tooth in there and just walked out. So, that is what really made me scared of dentists.

Fear of the dental drill

Another common source of fear reported by the participants was the dental drill. Participants described how thoughts of the smell, the sound, and the pressure of the drill, in addition to the pain, all caused them anticipatory fear. For example, a 64-year old man with bleeding gums reported several sensory fears that had caused him to delay seeking any dental care for his symptoms:

> If I'm gonna have a filling, I know he has to drill which I don't like. And he's gotten better over the years. The technology's gotten better, so but I worry about it... [I: And the only thing that you don't like is the drilling.] Yes.... It's changed now... It's much less. It's just different it's I don't like noise, I don't like the way it feels... It sounds like a drill [Laughs] a house drill when you're putting in bolts in a wall.

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Similarly, a 60-year old woman with a tooth sensitive to cold also described the fear evoked by the sound of the dental drill. As a result of her fear, she had not been to the dentist in over five years. She told us:

> You know they got the earphones. I can still hear the drill. I hear the drill the night before I go to the dentist.... [I: You worry about drilling?] ...Oh yes. Because that's going to lead to anxiety. I'm nothing but a walking wreck you know. [So you worry about drilling for what reason?] That they're going to hit a nerve. [I: So it's the pain still.] Oh yeah. It's always the pain... The work would go easier if I had nitrous oxide. And he kept insisting that I didn't need it, but it was a fight to do everything because I'm fighting him. I'm moving around trying to avoid the drill... To me nitrous oxide would have been a whole lot simpler for both of us, especially since I ended up biting him.

Due to the fear of having to undergo drilling, many participants reported not seeking care for their current symptoms. Among those who did obtain care, many had delayed doing so until they could wait no longer. For example, a 71-year old woman with a tooth sensitive to cold had not sought dental care in two years, until the pain became intolerable. She remarked:

> .....I think the pain... The drilling... I'm just afraid. I really have to talk to myself to go to the dentist. And once I get that stamina up and you know really, it's really bad then I'm not afraid because it's hurting so bad, I got to go... [I: And why do you worry about drilling when you go to the dentist?] You know the noise. I'm scared. The drilling and the extractions are bad. It sounds awful... It makes me uneasy.

Fear that the dentist will want to extract teeth

Another common fear was that the dentist would need to extract a tooth. For example, a 24-year old woman with a toothache who had not been to a dentist in over five years told us she had delayed care due to her fear of the dentist wanting to pull out her tooth:

> [I: But you never actually went in to discuss it with a dentist?] Uh-uh. [I: Why not?] ...Scared. [I: What are you scared of?] Scared going in and looking at it and him say, ‘Oh, it's got to be pulled out'... I know they gonna tell me that.

For some, this fear of having an extraction was associated with the pain involved in the procedure. For example, a 45-year old woman who experienced difficulty chewing had not been to the dentist in over five years because of her worry that she would have a tooth extracted. She explained:

> I think I'm going to have to get a tooth pulled; and, maybe, that's why I'm scared. I'm scared to get a tooth pulled. So, you think about it when you were 17, and how you had to get that tooth pulled... and you don't want to experience that again. I think that's what it is. Because, he had to get something and lift the tooth up – tooth wasn't coming out... And, I was, like, down in the chair; and he was, like, yanking it... I would like to go to the dentist, but I'm a little scared.

For others, however, the fear of extraction was not associated with the pain involved, but with a fear that their teeth were being extracted unnecessarily. Several participants’ fear that dentists unnecessarily pulled teeth led them to avoid dental care. For example, a 52-year old woman with a tooth sensitive to cold avoided dental care for over five years. She told us:

> [I: Do you worry about anything when you go to the dentist?] If there's something else going on inside of my mouth that I can't feel. Do I have any teeth taken out? If they were to take any teeth out, was it just for fun, or was it really because I had something wrong? ...Because I don't want them to take out my teeth.

Similarly, a 57-year old man had coped with toothache pain for over six months without seeing a dentist because of fear the dentist would pull another tooth because that is what dentists had done to him for this problem in the past. He reported:

> I don't like dentists period... I felt like all they liked to do was pull teeth, see when I was coming up I believe a lot of my teeth that was pulled should have never been pulled... And then like I said that's my biggest fear of dentist and even now some of them, 'You have a lot of teeth missing,' and I say, 'What else is new,' and... I still feel like I'm not going to get quality care.

Fear of contracting an illness from unsanitary instruments

A number of individuals also expressed fears that some dentists might use unclean or unsterilized instruments and be putting them at risk for contracting an infection. These fears served as a barrier to seeking dental treatment for a number of participants. For example, a 31-year old man with bleeding gums had not seen a dentist in over five years, in part due to concerns about contaminated instruments:

> That's the only scare I have is that the equipment is not being sterilized right and I can get a disease or something like that... before you put anything in my mouth, let me see what ya'll sterilizing them instruments with... If I see anything I'm gone. As soon as I see something that might give me an idea that it might cause me any uh discomfort or disease or anything else, I'm gone. I'm walking out of there.

Similarly, a 53-year old woman with a tooth sensitive to cold emphasized the need to be attentive when seeing a hygienist to be sure that they are not re-using the dental equipment. She told us:

> [I: When you go to a dentist, are there things that you worry about?] Yeah, I'm worried about the- the safety of the equipment, you know, that the equipment is sterilized and everything. But generally when you go, they're just putting equipment... So, I'm figuring that they cleaned it. But, uh a lot of places you go to, when you go in, the equipment is already there, so you don't know if they just finished using it on another patient or not. So there is a concern you have to worry about... because in this day and age with the AIDS... you have to be careful.

HIV/AIDS was the disease participants most feared contracting from the dental instruments. For example, a 41-year old woman with a toothache who had not seen the dentist for these symptoms in over six months told us:

> You do worry about it, you have AIDS, hepatitis, you have all kinds of things, you don't know the person before you, you know, and then the assistant, you know, sometimes they don't put these things in the alcoves right to sanitize things. They hurrying up.

Fear of X-rays

Several participants expressed concerns and fears about the use of X-rays as part of their dental exam. This fear was associated with the belief that that exposure to radiation might put them at risk for cancer. For example, a 61-year old man with bleeding gums who had not seen a dentist for over two years, expressed concern about cancer and whether X-rays were necessary. He said:

> [I: Do you worry about exposure to X-rays?] Yes. [I: Why is that?] Well, X-rays penetrate and they're rays that's what they're called and the cancer rate is very high on X-rays. A lot of times you don't need X-rays when they get to them. So you have to be concerned about how much X-rays is necessary.

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As a justification for their concern about the dangers of X-rays, several participants noted that radiologists leave the room to protect themselves from the radiation. Consequently, some participants questioned whether the amount of radiation exposure was safe. For instance, a 53-year old man with teeth sensitive to cold expressed concerns about going back again:

> [I: Do you worry about exposure to X-rays?] I always have that on my mind. [I: Why do you worry about that?] Well I know at some point it can cause you cancer. [I: Is that, how did you find out that that could cause cancer?] Uh, in the hospital something—I went there for a chest X-ray that's what it was. And I was asking the lady would I have to come back again. And then she explained to me, why it's so important not to be getting a lot of X-rays back to back.

Although not as frequent as concerns about pain, fear of X-rays did appear to serve as a barrier to seeking dental care for several participants. For example, a 44-year old man never went for routine dental care and had delayed seeing a dentist about his toothache for over six months because of his fear of exposure to radiation. Explaining his concerns, he said:

> Because of the fact that uh radiation has been uh deemed harmful. And the fact that generally people who uh administer radiation, visually, watching them like that, that they don't want to be around when the radiation is emitted.

Fear of poor-quality care or mistreatment

Several participants reported fears of what they perceived as mistreatment or poor-quality care from a dentist based on previous negative experiences. These experiences of perceived mistreatment were typically painful and the dentist was often described as insensitive to their pain. For example, a 67-year old man with a tooth sensitive to pressure had recently had a tooth extracted, but he complained about the lack of sensitivity the dentist demonstrated towards him:

> Well, the last experience – I don't – I don't think the doctor showed uh, any sensitivity to what I was going through and for this reason, I'm a little hesitant about going back to him for another extraction... it was so painful and those are the kind of bad experiences that cause people to sort of stay away from – from – from dentists...

Similarly, a 35-year old man with a tooth sensitive to pressure told us about what he perceived as poor-quality care from a dental student. He had not been to the dentist in over five years because of an experience he had at that time:

> ...I went to get a teeth cleaning and I was upset... I was upset that they were, like a student or intern... cleaning my teeth and... she kept hitting pressure points with, I mean, I think she was supposed to be grabbing a tooth and she scared me and, the little pick was into the gum instead of the tooth, she didn't know she was doing it... [Are there things you worry about when you go to a dentist...?] Yeah. I still get flashbacks of the last, when I went to the dentist and the intern – I didn't know what the hell she was doing.

In addition to recent experiences of mistreatment, mistreatment that occurred when the interviewee was young was also cited as a deterrent in seeking dental care in adulthood. For example, a 60-year old woman with a tooth sensitive to pressure described mistreatment in the past which had influenced her reluctance to seek dental care for her current symptoms:

> [I: ...how satisfied are you with the quality of care that you've received from dentists in general in the past?] Well, see that's why I got such a phobia now because my early experiences with dentists were horrific... the only thing I

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> remember about going to the dentist there was when the dentist slapped me and then he put his knee in my chest because he was pulling a tooth... And he was having the hardest time pulling it.

Discussion

Given the persistently low levels of dental care utilization found among African American adults, there is a pressing need to identify barriers in order to design care promoting interventions. Although research has identified other factors that contribute to low utilization of dental care among African Americans (e.g., insurance status, dental symptoms, use of self-care),[2,8-9,30] the association between dental fears and lower utilization has been little examined among African Americans. To address this issue, the current study examined the types of fears reported as barriers to the utilization of dental care by a non-patient sample of African American adults with oral health symptoms in Central Harlem. Participants reported several types of fear that dissuaded them from obtaining dental treatment (often for years) for their oral health symptoms, thereby offering several insights into the reasons why African Americans may not seek dental care.

Although the qualitative methods employed in this study allow for the discovery of formerly undocumented fears, the current study found that African Americans experience many of the same dental fears as other cultural groups. Fears of oral pain—specifically fears of the injections and the dental drill—were pervasive. This is consistent with past research on primarily White samples.[11,14,19,22,24,26] However, the meaning or reason for these fears may by different than in past samples. For example, several participants reported that their fear of needles was not associated with pain, but with their association between needles and drug use. This specific reasoning for fear of needles is unique in the literature, although not surprising given the high levels of drug use that have existed within the Central Harlem community.[34-35] Similarly, as in some past research with other racial/ethnic groups,[11,23,25,27] we found that a number of African Americans experienced fears based on past negative experiences or perceived mistreatment from dentists. However, our participants described past experiences with dental mistreatment and poor quality care in addition to past experiences of pain which have characterized the negative experiences in much of this past research. These findings provide further evidence that negative experiences, either as children or adults, can result in a lifetime of avoidance of dental care.

However, other fears identified among this sample have not been reported in the existing dental fear literature or have only rarely been noted as fears in past research with other cultural groups. A substantial number of participants described fear of contracting an illness (particularly HIV/AIDS), from unclean dental instruments. Given the significant impact of the HIV/AIDS epidemic on the Harlem community,[36] it is not surprising that this disease was noted by many of our participants. They argued that it was difficult for the dentist to know if the previous patient was infected with a potential blood-borne illness and it was difficult for them to know if the dentist had properly sterilized the tools. Although fear of contagion has been noted elsewhere,[14,28-29] it has not been one that has been often examined. Furthermore the specific concern of contracting HIV/AIDS may be more pervasive among urban African American populations than other groups.[28]

Another fear reported in this sample was the fear that use of X-rays to take radiographs of their teeth may place them at risk for cancer. These participants feared that X-rays at the dentists' office were unnecessary and potentially harmful. Although the failure to utilize dental care is often conceptualized as due to a lack of education about the benefits of dental care, the finding that some participants avoided dental care due to fear of X-rays and fear of infection suggests that some African Americans view the risks of dental care as greater than

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its potential benefits. Fear of X-rays from dental radiographs has only been noted in one other study.[24] The current study replicates that finding among African Americans, but also extends it by finding that participants avoided dental care due to this fear.

Finally, the fear that the dentist will want to extract their teeth was identified in this sample. Specifically, participants not only feared the pain involved in this procedure, but were also fearful of having teeth extracted unnecessarily. Given the high prevalence of tooth extractions (as opposed to tooth-saving procedures such as root canals) among African Americans,[37-39] concerns about unnecessary extractions may be well-founded. Indeed, this fear has not often been identified or discussed in the dental fear literature. However, in the only other study identified that examined fear of tooth extractions,[13] they found that this fear was associated with delay in obtaining dental care. The current study extends these findings to African American adults who also described avoiding obtaining dental treatment due to fear of extractions.

The finding of six types of dental fear among African Americans has implications for the use of extant measures of dental fear in this population. Although some research has examined the types of dental fears experienced by patients, as noted by Oosterink and colleagues,[21] most studies have assessed only a small number of potential dental fears. None of the existing measures of dental fear include all of the fears identified here. Furthermore, much of the research linking dental fear to dental care utilization or oral health has focused more on general dental anxieties rather than specific dental fears.[40] These findings also call into question the content validity of these measures for use with African Americans, suggesting the inclusion of additional fears is needed to improve the content validity of extant measures for use with African Americans. Future research aimed specifically at expanding and validating current measures of dental fear among African Americans would be beneficial.

The finding that various dental fears serve as barriers for African Americans to the utilization of treatment for their dental symptoms has important implications for interventions. Although a meta-analysis of existing behavioral interventions (e.g., relaxation, desensitization, cognitive therapy) has demonstrated these techniques to be effective in both reducing the level of dental fear and increasing the likelihood of post-intervention dental visits,[41] little research has focused on addressing the dental fears of African Americans. The current findings suggest ways in which such interventions may be tailored for African Americans. Indeed, the finding that African American adults reported procedure-specific fears (e.g., drills, extractions, radiographs) and other specific fears (e.g., contagion, mistreatment) suggests that interventions should be targeted for specific fears rather than dental anxiety in general. Interventions designed to directly address the specific fears would likely be more effective in addressing the fear and thereby increasing willingness to obtain dental care.

These findings also suggest specific things that dentists can do potentially to alleviate fears or prevent the amplification of fears so that they do not become barriers for future care. First, dentists or hygienists may inquire about specific dental fears held by their patients prior to beginning a clinical exam. This will allow them to be more sensitive to the concerns of their patients, as well as provide opportunities to educate patients and prevent fears of specific procedures. For example, if the dentist knows that the patient has a specific fear of needles or the dental drill, then strategies such as providing music or reminding office staff to cover and place needles for injections out of the patient's sight may be helpful in reducing patient fears. Another strategy suggested by the findings is waiting until the patient is in the chair before opening the sterilized dental instruments. This helps to ensure that all patients see prior to being seated that the equipment was clean and free of infectious disease.

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Similarly, explaining to patients both the need for radiographs the fact that dental radiographs utilize low levels of radiation (unlike chest X-ray for example) may also serve to reduce fears. These simple techniques that acknowledge and attempt to sensitively address fears may serve to both prevent problems related to dental fears in the current dental encounter, but also make the patient more willing to seek dental care in the future. Therefore, there is an imperative to enhance dentist education so they are better equipped to address patient fears, provide pain management, and otherwise adopt a more patient-centered approach to dental care.[42-43]

Although the current study is one of very few to examine the dental fears of African American adults, it has limitations. First, it is based on a relatively small non-probability-based sample from a specific urban neighborhood. So, the findings may not generalize to all African American adults. However, given that the sample is comparatively large for qualitative research and that the street-intercept method used to recruit the sample reduces self-referral bias, there is an increased likelihood that the findings do generalize to those living in Central Harlem. Furthermore, although based on a relatively narrow geographic section of the African American community, many of the fears reported may likely generalize to other urban African American populations and indeed, other low-income urban racial/ethnic minority communities who may also experience high prevalence of drug use, HIV/AIDS, and poor quality care that contribute to the fears found here. Future research on barriers to care among other urban minority populations would be useful to both assess the extent to which these findings generalize and identify unique barriers that could be used to promote dental care in other communities. Finally, the study employs semi-structured interviews in which participants nominated the specific barriers to dental care. As such, unlike a structured survey, the study is not designed to identify the prevalence of each of the reported fears. However, this method does ensure that the fears reported are those that are most salient to our participants. Despite the limitations, the findings serve to illuminate the dental fears that serve as barriers to the utilization of dental treatment for African American adults in Central Harlem. As one of the first studies to examine the dental fears of African Americans, this research suggests several ways in which these fears may be addressed in order to increase the utilization of dental care among African Americans and other urban minority communities.

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Table I

Sample Characteristics of African American Adults in Harlem with Dental Symptoms (N = 118)

	N	%	M	SD
Sex				
Male	49	42%		
Female	69	59%		
Age			45.9	14.7
18 – 35 years	28	24%		
36 – 55 years	61	52%		
> 55 years	29	25%		
Marital Status				
Married / Common Law	24	20%		
Separated / Divorced / Widowed	30	25%		
Single, never married	64	54%		
Education				
Some High School	34	29%		
High School or GED	41	35%		
Some College	24	20%		
Associates or Technical College	6	5%		
Bachelors or more	13	11%		
Employment Status				
Working Full Time	30	25%		
Working Part Time	27	23%		
Not Working – Ill or Disabled	28	24%		
Not Working – Retired	12	10%		
Not Working – Other	21	18%		
Personal Yearly Income				
< $10,000	48	41%		
$10,000 - $19,999	26	22%		
$20,000 - $34,999	23	20%		
$35,000 - $49,000	10	9%		
$50,000 or more	10	9%		

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Table II

Self-Reported Dental Characteristics of African American Adults in Harlem with Dental Symptoms (N = 118)

	N	%	M	SD
Number of Oral Health Symptoms +			3.1	2.1
1 – 2	58	49%		
3 – 4	40	34%		
5 – 6	12	10%		
7 – 11	8	7%		
Edentulous Status				
Fully Dentate	19	16%		
Any Missing Teeth	83	70%		
Edentulous – Single Arch	8	7%		
Fully Edentulous	8	7%		
Number of Teeth Lost			9.3	9.9
None	19	16%		
1 – 5	40	34%		
6 – 10	20	17%		
11 – 20	16	14%		
21 – 30	14	12%		
All	8	7%		
Tooth Replacements*				
Upper: Has bridges, partials, or implants	24	27%		
Upper: Has full denture	13	81%		
Lower: Has bridges, partials, or implants	22	24%		
Lower: Has full denture	5	71%		
Dental Insurance				
None	29	25%		
Medicaid	58	50%		
Private/DMO	25	21%		
Other	5	4%		
Time Since Last Routine Dental Visit				
Within past 6 months	39	33%		
Within past year	20	17%		
Within past 2 years	9	8%		
Within past 5 years	17	14%		
5 years or more ago	23	20%		
Never	10	9%		

Note: + Oral health symptoms are the number of specific symptoms (out of 13 assessed) that participants reported experiencing in the past 6 months that lasted for 2 days or more in a row.

*Percentage of those with partial tooth replacements is based on the 89 participants who were missing any teeth from the upper jaw and the 90 participants who were missing any teeth from the lower jaw. The percentage of those with full dentures is based on the 16 participants who were missing all teeth from the upper jaw and the 7 participants who were missing all teeth from the lower jaw.