

Exploring Dental Care Misconceptions and Barriers in Pregnancy

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ABSTRACT: **Background:** Poor oral health is increasingly linked to adverse pregnancy outcomes, including preterm birth and low-birthweight infants. Little is known about childbearing women's experiences in obtaining dental care. The objective of this study was to explore Florida women's experience of barriers in obtaining dental care before and during their pregnancies. **Methods:** Study data were derived from a larger data set of a study that examined barriers to prenatal care. One month after giving birth face-to-face interviews were conducted with 253 African American women, 18 to 35 years old, who were residents of one of three Florida counties. Interview questions about women's experiences on obtaining oral health care before and during pregnancy, and recall of guidance about oral health care during prenatal visits were transcribed and analyzed qualitatively. Through subject-level content analysis, key themes were assessed about the participants' perspectives on obtaining oral health care before and during pregnancy. **Results:** Most participants did not obtain dental care and did not recall receiving dental information during prenatal visits. Barriers to dental care included lack of insurance, difficulty in finding a dentist, low priority given to dental care, misconceptions about the safety and appropriateness of dental care during pregnancy, and sporadic anticipatory guidance during prenatal care. **Conclusions:** Misconceptions about the appropriateness of oral health care during pregnancy may affect women's access to and use of this care. Given the implications of poor oral health on possible adverse birth outcomes and its larger connection with the general health of mothers and babies, attention to oral health misconceptions and barriers is warranted. (BIRTH 37:4 December 2010)

Key words: African American women, anticipatory guidance, dental care experience, oral health, prenatal care

Women should be counseled about the importance of maintaining oral health during pregnancy, according to recommendations of the American College of Obstetricians and Gynecologists (1). Specifically, its guidelines advise continuing usual dental care during pregnancy, including brushing and flossing, professional cleanings, and any medically needed dental

work. The American Dental Association encourages pregnant women to have preventive examinations and cleanings during pregnancy (2). Dental work is generally recommended during the second trimester to reduce any risk to the early development of the fetus and for the woman's comfort, and is considered safe and effective throughout pregnancy (3). In 2010 the

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California Dental Association urged perinatal and oral health practitioners to:

Advise the pregnant woman that prevention, diagnosis and treatment of oral diseases, including needed dental X-rays and use of local anesthesia, are highly beneficial and can be undertaken with no additional fetal or maternal risk when compared with not providing care (4, p 4).

Most of the commonly used drugs in dental practice (i.e., lidocaine, acetaminophen, and antibiotics such as penicillin) can be administered during pregnancy with relative safety (2).

Despite professional recommendations to maintain oral health, the incidence of poor oral health among women of childbearing potential remains high. Periodontal disease prevalence is 37 to 46 percent in women of reproductive age, and is estimated to be as much as 30 percent among pregnant women (5). Poor oral health has been implicated in adverse birth outcomes, specifically prematurity, development of preeclampsia, and infants born small-for-gestational age (6). These associations are likely to be further exacerbated among low-income populations.

Recent studies have reported an emerging link between periodontal disease and an increased risk for preterm birth and low birthweight infants (7–9). Although some studies indicate that treatment for periodontal disease during pregnancy can improve birth outcomes (10,11), others find no such results (12); however, all provide evidence suggesting that dental treatment and therapies are safe during pregnancy.

It has been reported that oral health in pregnancy is frequently misunderstood by physicians and dentists (13,14). A 2006–2007 survey of 1,604 dentists in Oregon revealed misconceptions about the appropriateness of routine procedures such as x-rays and the administration of lidocaine, and requests for education on how best to counsel pregnant patients (15). Wilder et al, in a study in North Carolina, found that 49 percent of obstetricians rarely or never recommended a dental examination during prenatal care visits (16); Strafford et al reported similar findings in Ohio (17). In another national study of obstetrician-gynecologists (18), most (73%) did not ask pregnant women if they had recently seen a dentist, inquire about current oral health (54%), or provide information on dental care (69%).

Some groups of women are significantly less likely to obtain dental care during pregnancy. Women with low incomes, African American and other minority women, and women who participate in Medicaid are half as likely to receive oral health care while they are pregnant compared with women with higher incomes, white women, or those who are privately insured (19–22). Pregnancy stressors, perception of dental experience, attitude toward dental practitioners,

importance and valuing of oral health, perceived ability to pay for care, time constraints, and dental practitioners' and office staff attitudes toward clients have been identified as barriers to use of dental services (23).

Despite recommendations to provide care and counseling on maintaining oral health during pregnancy, few studies have documented women's perceptions of oral health guidance during pregnancy (24). Given the consequences of oral health for women and their children, it is important to understand women's experience with dental access and use during their pregnancies. The objective of this study was to explore Florida women's experience of barriers in obtaining dental care before and during their pregnancies.

Methods

This qualitative research was part of the Healthy Futures Perinatal Research and System Design Study that examined the relationship of perinatal health care and social, economic, and environmental conditions related to maternal, birth, and infant health outcomes in Florida. Data are derived from a subset of a larger data set collected from recently pregnant African American women, 18 to 35 years of age who were residents of three Florida counties (women of other races, who were outside the age range, or residents of other counties were excluded). The three counties reflect the diversity of population groupings in Florida: a large, urban county with a relatively small African American population (10%); a medium-sized county with a large professional population and a relatively large African American population (30%); and a rural county with a predominantly African American population (56%). The medium-sized and rural counties are contiguous.

Potential study participants were approached in the hospital and invited to take part in an interview 1 month after the birth of their baby. English-speaking, self-identified African American women, regardless of income, education level, or insurance status who delivered at one of the participating hospitals were approached during the recruitment phase of the study, July 2006 to July 2007.

Women taking part in this study shared their impressions of and experiences with the perinatal care system by answering a series of open-ended questions on a wide range of topics, including health history, pregnancy, experience obtaining health care including dental care, labor and delivery, sources of social support, stress, perceptions of neighborhood, and other topics. The face-to-face interview lasted 1 to 2 hours and took place in a location chosen by the participant (usually her own home). After signed informed consent was obtained, the interview was tape-recorded.

Trained female interviewers with previous experience interviewing African American women and knowledge of the perinatal process conducted the interviews. All interviewers were trained by the study team in confidentiality requirements and practices, the voluntary nature of this study, and the right of an individual to withdraw from the study at any time. Study participants received \$20 in appreciation for their time and participation in the project. All study procedures were reviewed and approved by the University of South Florida Institutional Review Board and the Florida State University Human Subjects Committee.

Data from the interviews were transcribed and analyzed using MAXqda2007, a qualitative analysis data management program (25). Through subject-level content analysis, key themes were assessed relating to the interviewees' perspectives on obtaining oral health care before and during pregnancy. This analysis was conducted using an intuitive or immersion/crystallizing analysis plan in which the researchers review all the data and cull out those aspects most relevant to the research questions (26,27). Theme topic areas were identified from reading and coding transcripts based on subject categories corresponding to the interview questions. The study team resolved any difference in coding through discussion until reaching consensus.

The emergence of a theme related to oral health became evident after the initial analysis of the larger data set. The original study was designed to broadly explore women's experiences accessing care in the perinatal period. This subset of data related to oral health includes all respondents who discussed it. Thus, our research design was not intended to achieve statistical power or qualitative saturation, but instead, was intended to provide rich, descriptive information about women's experiences with dental care during the perinatal period. Verbatim quotations presented next are attributed to individual research participants by an alpha-numeric code that indicates the county of residence (first letter) and interview number.

Results

A total of 543 women agreed in the hospital to be contacted to take part in the larger study; of those, 253 completed an interview (a response rate of 46.5%) and discussed oral health care access and use. Table 1 provides additional sociodemographic information about the participants.

More than two-thirds of the participants were covered by Medicaid for their prenatal care. Medicaid is a federally and state-funded program in the United States that pays for medical care for those who cannot afford it. The program typically helps low-income individuals or

Table 1. Participants' Sociodemographic Information

Characteristics	County A No. (%)	County B No. (%)	County C No. (%)
Interviews completed*	144	84	25
Mean age (yr) (SD)	24 (4.7)	25 (4.5)	24 (4.4)
Education†			
<High school	39 (27)	6 (7)	5 (20)
High school/GED	42 (29)	19 (23)	8 (32)
>High school	58 (40)	52 (62)	10 (40)
Marital status (single)	118 (82)	59 (70)	19 (76)
Parity (≥3)	37 (26)	29 (34)	15 (60)
Insurance (Medicaid)	111 (77)	55 (65)	21 (84)

*County A = urban; county B = urban/rural; county C = rural.

†Because of missing data, not all percentages will add to 100%.

GED = General Equivalence Degree, which is an alternative education option for individuals who drop out of high school.

Table 2. Participants' Self-Reports of Obtaining Dental Care and Problems with Teeth During the Perinatal Period

Participants' Information	Yes No. (%)	No No. (%)	Unclear No. (%)
Dental care before pregnancy			
County A	40 (48)	43 (51)	1 (1)
County B	53 (38)	75 (53)	13 (9)
County C	10 (40)	14 (56)	1 (4)
Total	103 (41)	132 (53)	15 (6)
Problems with teeth during pregnancy			
County A	32 (38)	47 (56)	5 (6)
County B	50 (36)	80 (57)	10 (7)
County C	12 (48)	12 (48)	1 (4)
Total	94 (38)	139 (56)	17 (6)
Dental care during pregnancy			
County A	24 (29)	52 (63)	6 (7)
County B	37 (26)	93 (66)	11 (8)
County C	3 (12)	22 (88)	0
Total	64 (26)	167 (67)	17 (7)

County A = urban; county B = urban/rural; county C = rural.

families, and elderly or disabled individuals. Each state manages its own program, and is able to set different requirements and other guidelines. Florida women aged 21 and above who qualify for Medicaid because of low income (at or below 25% of the federal poverty level) have oral health coverage that is limited to pain relief and extractions, and women who qualify for Medicaid *only* when they are pregnant (i.e., income between 25% and 185% of the federal poverty level) have no Medicaid coverage for oral health care.

The following sections provide findings from the analysis of participants' responses to questions related to obtaining oral health care before and during pregnancy. The interview guide included three general questions on oral health: "Did you go to the dentist during the year

before you were pregnant?” “Did you have any problems with your teeth when you were pregnant?” and “Did you have a dental visit when you were pregnant?” Table 2 shows frequencies for participant responses to these questions. Interviewers probed for additional information from participants as warranted.

Reasons for Not Obtaining Care Before and During Pregnancy

Slightly more than half of the participants said they did *not* see a dentist in the year *before* their pregnancy. Among these women, the most commonly cited reasons were related to paying for care (lack of insurance, problems using it, or not having money to pay), and the view that obtaining dental care was not a priority. Most women did not see a dentist *during* their pregnancy. Reasons for not seeing a dentist included many of the same reasons given before pregnancy: nothing was wrong, lack of or competing priorities, and financial or insurance issues. As most of the same reasons for not obtaining dental care were given both before and during pregnancy, representative quotations listed next combine responses for these time periods.

Lack of insurance or money to pay for a visit created long gaps in some women’s ability to care for their teeth.

I haven’t been to the dentist in about three years... I didn’t have the money to pay for it (B0019).

Some study participants covered through Medicaid for their prenatal care attributed the lack of dental coverage to having Medicaid as their only insurance. Those who had dental coverage available through Medicaid reported difficulties finding a dentist who would accept it or difficulties in obtaining an appointment.

That’s one thing that I do have a problem with is getting in to see the dentist. I have dental coverage, but there’s only one dentist who will see all of the Medicaid patients and they don’t answer the phone. (laughter) Yeah, and that’s what the insurance company told me as well. They said there’s only one provider and we’ll let you know now, he will not answer the phone (A0037).

The (hardest) thing is to find a dentist that took Medicaid. Terrible. I couldn’t find one. And I still can’t find one (A0067).

It’s very, very, very difficult with Medicaid. I was trying to go. I tried, I called last week because I chipped a tooth back here, so it’s hurting ... you call a dentist. They don’t accept Medicaid or their panel is closed for taking Medicaid patients. Or if you do talk to one, you can’t make an appointment for a couple months down the road even if you have an emergency (B0089).

Some participants gave vague responses about not seeking dental care:

No, there’s no reason why I never went. It was just ... I never made an appointment to go (A0038).

Some participants indicated that they had no dental problems and hence they did not have a reason to seek care:

I never go to the dentist... I just never went. I only have problems with my teeth rarely, so I never went (C0023).

Still other participants gave reasons that indicated dental care was not a priority for them:

Should have, but ... I just didn’t. ... I took care of myself but I didn’t do the things like go to the dentist and get mammograms and maybe get my cholesterol checked and things like that, that I know were important, but I just didn’t do it. I don’t know why I didn’t though (A0063).

I haven’t been to the dentist in years, but I need to go... I’ve never even thought about it ... I just make sure the kids go ... I need to go—I haven’t been since ’98 or ’99 (B0060).

Some participants cited other priorities, such as school and family, as competing for their time:

I just didn’t go. I was probably just too busy with school and didn’t think about it or have time (B0050).

Because I don’t know. I didn’t ... a few times people offered me to go, but my son was just ... my husband’s always tied up with my other kids. So, I didn’t think about myself. I just worried about them (A00149).

Oral Health during Pregnancy—Is Obtaining Care Appropriate?

In addition to the preceding reasons for not obtaining dental care, women expressed concerns about the appropriateness of dental care during pregnancy. They included questions about the need for x-rays, the types of procedures allowed, lack of pain relief or worries about its effects on the baby, beliefs among friends and family that dentists would not see pregnant women, and information from practitioners about seeking dental care. Comments about procedures and pain medicine included:

I didn’t really think about going to the dentist because most likely I was going to have to get my teeth pulled and everybody was, like, it’s no use because I couldn’t get my teeth pulled while I was pregnant because they wouldn’t give me no pain medicine, so you just was better off waiting (A00157).

Someone actually told me that I shouldn’t go to the dentist because I am pregnant ... A friend (told me) ... someone told her that going to the dentist was like pointless while you’re

pregnant because they won't give you any kind of numbness. They're pretty much limited to what they can do (B008).

Beliefs about prohibitions on obtaining oral health care as a result of pregnancy were revealed in the following comments:

I was pregnant, and they don't see me 'cause I was pregnant (C0027).

It was an abscess, so they gave me some antibiotics and pain pills. They really wanted to pull it, but my mom, ... she don't believe in getting your teeth pulled while you're pregnant (A005).

I was just asking, you know, friends and whatever, and they were telling me that a dentist won't see you because of you being pregnant ... And a lot of times the doctors don't explain that to you. They just tell you to take your vitamins (A0032).

Participants also commented on information received from both prenatal and dental caregivers:

I remember my doctor told me that they probably wouldn't want to see you while you're pregnant, the dentist. You have to go after you're pregnant (B0010).

I asked Ms. X at the Health Department and she told me they probably not going do too much to my mouth until after I had the baby because I was far, and then with the chemicals and stuff they use in the dentist (C0036).

I had a toothache. They told me to make an appointment after I had him because I need to have a tooth pulled and they weren't going to do it while I was pregnant with him. I was about 5 or 6 months, if not 7. They gave me some hydrocodone pain killer ... I had to get a root canal ... they didn't want to do it while I was pregnant (B00118).

Anticipatory Guidance on Oral Health

Recommendations to see a dentist during pregnancy are part of the anticipatory guidance women should receive as standard of care during prenatal visits. We assessed receipt of this guidance within the context of a list of topics that are recommended for coverage during prenatal care visits (28). Women were asked, "Did your prenatal care provider talk with you about getting dental care?" Taking into account only "yes" and "no" responses, over 60 percent of women said they did not receive information or guidance about obtaining dental care during their prenatal visits (Table 3). Some women reported receiving limited information about dental care:

Well they didn't say too much about it ... They just said that it was good to get dental care and stuff like that (B0018).

Dental? Yeah, and I read little leaflets that they'll give me. It says that I should go to the dentist, but I didn't go (A00154).

Table 3. Receipt of Prenatal Anticipatory Guidance About Seeking Dental Care

<i>County</i>	<i>Yes No. (%)</i>	<i>No No. (%)</i>	<i>Unclear No. (%)</i>	<i>Not Asked* No. (%)</i>
County A	44 (31)	76 (54)	13 (9)	8 (6)
County B	19 (23)	40 (49)	4 (5)	19 (23)
County C	8 (32)	12 (48)	1 (4)	4 (16)
Total	71 (29)	128 (52)	18 (7)	31 (12)

*Participants with no prenatal care were not included in this tally. In county B, one interviewer routinely did not ask participants about receipt of guidance on dental care.

Some participants received guidance that they could not act on because of barriers related to obtaining dental care such as insurance troubles or being unable to find a practitioner:

We did [talk about dental care] once, but I never went to the dentist. I had tried to find one, but you couldn't never find one. So I never went, but they told me to drink a lot of milk ... if I don't go to the dentist, drink a lot of milk and it will help keep the calcium (A0075).

In addition, participants reported the appropriateness of dental care during pregnancy was sometimes discussed during prenatal visits. Issues discussed included information about procedures that could be performed, concerns about calcium depletion, and information about the safety of dental care during pregnancy:

No, they didn't really mention much dental care. There was one midwife who just asked me if I would have pain in my teeth or ... she mentioned about going to the dentist ... said they would clean my teeth but they wouldn't do any pulling or any fillings or anything (C004).

Yeah, they say it's important to get it [dental care] because the calcium in your teeth, the baby takes most of that away, so it is very important (A00142).

They said it wasn't good ... to go to the dentist at that time because of the medicine that they might want to give me (A002).

Detailed responses from participants who said their prenatal caregivers did *not* discuss dental care with them were infrequent, but some participants indicated that they had to take the initiative themselves to handle dental issues during pregnancy. For some, this meant directly asking practitioners for help:

No, they didn't really talk about it. I mentioned to them, because I didn't think you could get dental care while you were pregnant ... I thought it was a no-no, so when my tooth started hurting, I questioned them about it and they were like, "yes, you don't need to be in pain" (B00144).

For other women it meant consulting friends and family:

They didn't tell me anything about [dental care]. I was telling them my mouth hurt and to try to stick it out. I drank the milk and then I called ... their great grandmother and she told me take some vinegar and pepper and put it where it hurt, and that kind of worked, too ... I had a lot of home remedies (A0015).

Discussion

For most study women the importance of oral health during pregnancy was not addressed during prenatal care, and many did not obtain dental care either before or during their pregnancies. Some participants believed that dentists could not do anything for them during pregnancy and some reported believing or being told by family, friends, and health care personnel that dentists would not work on their teeth during pregnancy despite its reported safety (1–4). Although it is not clear from this research if these recollections were a result of poor communication by the practitioners or misunderstanding on the part of participants, it is what women remembered and recounted from their visits.

The findings were consistent with a study of 10 Pregnancy Risk Assessment Monitoring System (PRAMS) states in which women reported they did not visit a dentist before or during pregnancy, even when there were obvious signs of oral disease (28). Similar findings have been reported in other countries; for example, a survey from Australia found that 65 percent of its respondents had no oral health care during pregnancy (29), and a survey in Kuwait found that about half of its participants visited a dentist during pregnancy, but almost all reported receiving no instructions on oral health during the pregnancy (30). Persistent misconceptions about dental care in pregnancy on the part of childbearing women need to be further identified and clarified to aid the development of educational and policy interventions.

Consistent with the literature, some health care practitioners were reported to hold misconceptions about when women should seek dental care, suggesting that efforts to improve oral health education among health care personnel who serve women of childbearing age are warranted. Disciplinary boundaries and the historic compartmentalization of dental practice and medical care may limit sharing of information among professionals.

Interdisciplinary learning and cross-training opportunities could be used to promote oral screening training for obstetricians, nurse practitioners, midwives, nurses, and family practitioners. Furthermore, instituting regular anticipatory guidance during routine dental checkups to women of childbearing age about the importance of

maintaining oral health and dental appointments during pregnancy may be a worthwhile avenue for oral health education, especially for women who seem to place a low priority on dental care.

Other barriers, including low income, lack of insurance coverage, and difficulties in finding a dentist prevented some participants from obtaining oral health care. In addition, many participants reported having no problems with their teeth during pregnancy (and hence no need to see a dentist), suggested oral health care was a low priority for them, or provided little explanation for not obtaining dental care. Financial barriers to care may have exacerbated some participants' reports of no need for dental care during pregnancy. Barriers to dental care for women of childbearing age should be further explored, including studying populations with different types of insurance coverage and by different race and ethnic groups to uncover economic or social disparities in oral health care experiences. Research on the funding of dental care and access to public and private dental insurance is also needed. Some issues that may affect access to and use of oral health services specifically for Medicaid recipients include low participation and a declining supply of dentists, billing procedures and reimbursement levels not comparable with other dental insurance, and sometimes dentists' negative perceptions of Medicaid patients (31).

This study does have some limitations. Study participants self-selected to take part in the interviews and might differ in systematic ways from those who did not participate. The focus on African American women may mask experiences of women of other racial and ethnic groups. As most participants were Medicaid eligible, results may not represent individuals with private dental coverage; furthermore, participants may have attributed difficulties obtaining dental care to Medicaid even if they did not qualify for such coverage (i.e., those eligible because of pregnancy only).

The overall focus of the larger study was women's health in the perinatal period, and oral health care was one of many components studied; therefore, the depth of available information pertaining to dental care was limited. Questions about experiences before and during pregnancy might have been subject to recall bias. In addition, without information from health care practitioners themselves, the perceptions from some participants that practitioners prevented or discouraged them from obtaining oral health care cannot be verified.

Conclusions

Persistent misconceptions about dental care in pregnancy on the part of both patients and practitioners need to be further identified and clarified. This study should

serve as a starting point for understanding women's experiences with oral health care access, use, and guidance during pregnancy. A better understanding of childbearing women's experience with oral health care can enhance future efforts to overcome delayed care-seeking behavior, improve the delivery of dental health information, and may help avert preventable adverse birth outcomes.

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