Disparities in Caregivers' Experiences at the Dentist With Their Young Child

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ABSTRACT

OBJECTIVE: To understand the experiences of diverse families when taking their young children to the dentist and to document their prevalence.

METHODS: An exploratory sequential design was used. First, 4 focus groups (N = 33) comprised of low-income female caregivers of children under 6 years of age were conducted in English and Spanish. Discussions centered around facilitators and barriers to taking children to the dentist. Themes derived from the groups were then used to create a survey that was given to 1184 caregivers in English, Spanish, or Vietnamese.

RESULTS: Thematic coding of focus groups found little support for typically reported barriers to pediatric oral health care utilization (eg, transportation, cost, knowledge); instead, caregivers reported negative experiences (eg, restraint, separation) as barriers. In the surveys, 66% of caregivers reported being separated from their children, 25% reported that their children were restrained (53.7% for cleanings), 26% of children were given sedating medication for cleanings, and 22% of the caregivers reported experiences that made them not want to return to the dentist. The prevalence of these experiences differed significantly among Latino, Asian, and Caucasian families and for annual incomes under or above $50,000.

CONCLUSIONS: Families with lower incomes and/or from ethnic and linguistic minority groups were more likely to report negative experiences at the dentist than higher income and Caucasian families. These data document the high prevalence of negative experiences and suggest ethnic, financial, and linguistic disparities in the quality of experiences. More research is needed on the role of dentists in facilitating or hindering oral health care utilization among diverse families.

KEYWORDS: dental care; disparities; Latino; low-income; oral health

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WHAT'S NEW

Our study demonstrates the prevalence of developmentally inappropriate dental care for low-income and minority children who visit the dentist and suggests that higher income and majority families have higher quality experiences, which may contribute to disparities in the utilization of dental services.

ATTENTION IS INCREASINGLY being focused on the oral health of children as poor early oral health predicts future dental disease, contributing to cascading health care costs.[1,2] Further, children experiencing dental pain are more likely to miss school, have difficulty focusing, learn less, and experience negative social consequences.[3,4] Although dental disease is highly prevalent in early childhood,[5] research is increasingly documenting disparities among high- and low-income families, minority and majority children, and English- and non-English-speaking families.[6–9]

Research to date has focused primarily on structural and familial barriers to oral health care utilization, including payment and access (eg, insurance issues, few Medicaid-accepting providers), transportation challenges, and parental knowledge, beliefs, and practices regarding oral care and diet.[10–12] Few studies have considered how families' experiences at the dentist might contribute to initial and continued service utilization[13,14]; however, studies in medicine have found that previous experiences with providers can influence continuing care, as well as the initiation of care with specific providers based on the suggestions or warnings of friends or family members.[15,16] Flores and Vega's review[17] of barriers to Latino children's health care utilization found that

caregivers' lack of confidence in health care staff was a major barrier to accessing medical care. Further, a national survey of 1369 adults found that physician's poor interpersonal skills and perceived medical skills were reasons to avoid seeking medical care.[18] Individual, community, and experiential factors also contribute to oral health care initiation and continuation and may disproportionately affect low-income and/or ethnic minority families. Thus, pediatricians should be cognizant of patients' experiences with other providers, such as dentists, which could affect utilization of services globally[17] and children's holistic health. To better understand experiences with oral health care, we conducted exploratory focus groups with low-income families about barriers and facilitators; the results of theses focus groups were then used to develop a survey interview that was administered anonymously to 1184 families.

We targeted families with young children in California because 1) California has high levels of child enrollment in Covered California and Medi-Cal, thus reducing potential cost-related barriers; and 2) California has adequate numbers of dental providers, yet the majority of kindergarteners have experienced tooth decay and a third of them have untreated decay.[19] Given that improvements in coverage and access for families with low incomes have not improved children's oral health much,[10] we sought to identify potential facilitators and barriers to oral health care for young children.

METHODS

We used a mixed-method, exploratory, sequential study design to identify key topics and assess their prevalence. For this, we first conducted semi-structured focus groups with caregivers of young children and then utilized those findings to develop a survey interview. All research procedures were reviewed and approved by a university institutional review board.

FOCUS GROUPS

Four focus groups (2 in English, 2 in Spanish) were held in 4 cities in Southern California; the 33 participants were low-income (<130% the poverty line), female caregivers with at least 1 child in a federally funded preschool. Participants were recruited from a preschool in each of the 4 cities on a first-come basis. Each group was audio-recorded and transcribed verbatim. Childcare was provided, and participants were given snacks during the meeting and a $20 gift card.

A semi-structured protocol with open-ended questions was used. One researcher facilitated the discussion and another kept field notes, asking additional or probing questions when needed. Participants were asked about their experiences taking their children to the dentist and what increased or reduced their likelihood of going. They were asked about their knowledge of oral health care, from effective brushing to recommended frequency of cleanings. Participants were asked about the frequently documented barriers to care in published studies and to describe their experiences when taking their children to the dentist.

In-depth coding and thematic interpretation[20] were used to code the transcripts for themes defined a priori from the literature (eg, access to providers, transportation, cost, knowledge), as well as emergent themes. Two researchers coded the transcripts deductively and inductively, meeting to compare notes and generate additional codes. Transcripts were coded by both researchers, with 100% consensus across themes. Novel themes were then used to create a survey about caregivers' experiences when taking their young (<6 years) child to the dentist. These themes were the focus of the second stage, survey study.

SURVEY INTERVIEW

Focus group discussions centered on the caregivers' experiences when taking their children to the dentist. As many of these experiences are not included in extant surveys of pediatric oral care, we wanted to explore how prevalent these experiences were among other caregivers. Thus, based on themes identified in the focus group discussions, we created a survey that asked about caregivers' experiences when taking their children for dental cleanings, fillings, and extractions, as well as general experiences at the dentist. Because 12% of the focus group participants were unable to read, we administered the survey as an interview, enabling input from educationally diverse participants.

The survey included terms used in the focus groups (eg, "drowsy juice," "de leche"). After the survey was drafted, cognitive interviewing procedures[21] were used to assess whether items were interpreted as intended, if much cognitive effort was required to answer them, and if there were better ways to word questions. In total, 16 caregivers (8 English, 8 Spanish) participated in the cognitive interviews. The survey was modified after each interview until no recommendations were offered and all items were interpreted as intended. The survey utilized skip-logic, enabling more in-depth questions when applicable and fewer questions when not (eg, if no extraction, then skip that section), with a minimum of 30 questions asked.

When we began collecting data, we identified some Vietnamese caregivers at our recruitment sites who did not speak English or Spanish. The survey was then translated into Vietnamese and back-translated to English. The survey was orally and anonymously administered to 1184 caregivers of young children who had taken their children to the dentist at least once. Our primary aim was to survey families with low incomes and to document the prevalence of various experiences; however, we also included a smaller portion of caregivers who were not low income to assess potential disparities in experiences. Respondents were given a children's book or small gift worth $1 to $2 (eg, sunglasses, flashlight) for completing the survey.

Caregivers were interviewed by 1 of 16 bilingual and bicultural interviewers from May 2016 to June 2018. Recruitment occurred in 2 ways. In one, caregivers were approached in public spaces and told that university researchers were studying "families' experiences when they take their child to the dentist." They were asked if they were the primary caregiver of a child under 6 years and if they

would be willing to answer questions out loud. They were told that the questions would take 5 to 10 minutes and they would receive a small gift for participating. Alternatively, family health coordinators at federally funded preschools asked caregivers if they would answer questions about "families' experiences when they take their child to the dentist" and that the answers, without their names, would be given to university researchers. Across these methods, response rates were high (95% of eligible caregivers participated). A large portion were completed at federally funded preschool centers (99% response rate), and the rest were completed in public spaces (eg, parks, malls), pediatric clinics, emergency room waiting areas, and a children's museum; 65% to 100% of those approached in each setting agreed to participate. Because our primary aim was to document the prevalence of various experiences among low-income families and secondarily to compare these experiences with those of higher resourced families, we primarily recruited in low-income neighborhoods and preschools serving low-income families. As Latinos make up over half of the low-income population of California, more Latino families than other racial/ethnic groups participated.

Survey data were analyzed descriptively first, providing frequencies of experiences. Next, logistic regressions assessed the likelihood of specific experiences (child restraint without consent, caregiver separation) based on demographic characteristics (race/ethnicity, including Caucasian, Latino, Asian, or other), income (≤$50,00 or >$50,000), and language spoken (English, Spanish, Vietnamese, or other). Because this was an exploratory study, no hypotheses were tested. All data were analyzed using Stata 14 software (StataCorp; College Station, Tex).

RESULTS

FOCUS GROUPS

There were 33 participants in the focus groups (Table 1). All were female, primary caregivers (30 mothers, 2 grandmothers, and 1 great-grandmother). Focus group discussions indicated that few caregivers experienced the types of barriers that other studies and national surveys have documented, such as cost constraints, access to providers, or lack of knowledge. However, most reported negative experiences that diminished their likelihood of returning or taking other children to the dentist. Twenty-three women (78%) reported extremely negative experiences involving separation from their young child, the use of restraints, over- or under-use of medication, lack of communication, and treatment without consent. Table 2 provides sample quotes by barrier type.

Table 1. Focus Group Participant Characteristics (N = 33)

Characteristic	Value
Age range (y)	21–57 (mean, 31; SD, 9.02)
Number of children	1–6 (mean, 2.7; SD, 1.34)
Race/ethnicity, n (%)	
Latino	29 (88)
African American	2 (6)
Caucasian	2 (6)
Education, n (%)	
Less than high school	7 (21)
High school diploma or GED certification	16 (49)
Some college or higher	10 (30)
Language preferred, n (%)	
English	15 (45)
Spanish	18 (55)

GED indicates General Education Development; SD, standard deviation.

SURVEY

Given that the focus groups identified negative experiences that could serve as barriers to children's receipt of timely oral health care and that these experiences are not included in any surveys of which we are aware, we drafted a survey focused exclusively on the positive and negative experiences at the dentist that were mentioned in the focus groups. Caregivers (N = 1184) of young children were interviewed. Low-income, Latino parents were disproportionately sampled, with the annual income of respondents ranging from less than $12,000 to over $75,000. Table 3 describes the sample characteristics. All survey respondents had taken their child to the dentist at least once for cleaning (94%), a filling (53%), or an extraction (23%) (Table 4).

SEPARATION

Caregivers were asked if they were ever separated from their children for dental services. Sixty-six percent reported being separated for cleaning (21%), fillings (38%), or extractions (31%). Additionally, 18% reported hearing their child crying from the waiting room; Caucasian caregivers were the least likely to have that experience (odds ratio [OR], 0.56; $P = .05$). This likelihood was further reduced if the Caucasian family had an annual income over $50,000 (OR, 0.15; $P = .01$). Spanish-speaking caregivers were almost 3 times more likely (OR, 2.92; $P < .0001$) and Vietnamese-speaking caregivers were 2 times more likely (OR, 2.01; $P = .02$) to report hearing their child cry from the waiting room than were English-speaking families.

RESTRAINTS

A quarter of caregivers reported that their child had been restrained at the dentist for cleanings (54.1%), fillings (77.5%), or extractions (46.1%). Eighty-four percent reported that the most commonly used restraints were professional restraints, such as papoose boards or soft restraints, followed by the staff or dentist holding down the child (68%) or the use of other materials, such as pillowcases (16%). A quarter of the caregivers whose children were restrained reported not being asked permission to use restraints, 27% were not told why the child was being restrained, and 25% were not asked to help calm the child prior to using restraints. Comparing rates of restraint by income, children with family incomes of less than $50,000 were 1.63 times ($P = .01$) more likely to be restrained that those with family incomes over $50,000. In comparing ethnicity, Latino children were almost twice

Table 2. Presence of Traditional and Experiential Barriers from Focus Groups

Barriers	Focus Group Comments
Traditional barriers	
Cost/payment concerns (0%; all women had Medicaid or insurance)	"Medi-Cal sends us where we can go. There are several places and you choose where." "Mine [my insurance] covers everything."
Lack of access	
Don't know how to find (0%; all women reported finding dentists easily, through referrals from family, friends, WIC clinics, homeless shelters, preschools, and Medi-Cal)	"My sister in-law tell me, because she had four kids, and already older. Only one is five years old, same with my daughter. And she tell me, 'You know, go to this place here 'cause this place is really good.' So that's what I did."
Transportation issues (0%; all women lived near the dentist or had access via car or bus)	"It's close by for me."
Lack of knowledge	
Timing for cleaning (0%; all women knew about twice-yearly cleanings)	"Every six months [cleaning]"
When to see a dentist (0%; all knew when they were supposed to first take their child to the dentist, but many did not adhere to that recommendation)	"He was three when he visited the dentist first." "My kids started as soon as I saw teeth, so by one."
Problems with bottles and milk (6%; 2 women admitted to previously not knowing that bottles were bad for teeth)	"Even at the WIC [Women, Infants, and Children], they tell you no more drinking bottled milk."
Beliefs	
Brushing not important (0%; all women thought brushing was very important)	"Cause if you don't do [brush] them, they can get cavities, and when these teeth are done, the next teeth can have cavities, too, so that is why I tell him to brush them."
Primary teeth not important (6%; only 2 women mentioned ever thinking that milk teeth [dientes de leche] were unimportant)	"Before, I thought they weren't important because they were de leche, but now I know they come from the root. It's bones, too." "It's not really like that, because even though they are de leche you have to treat them well."
Practices	
Not brushing teeth regularly or flossing (0%; all women discussed their children brushing regularly)	"All three, they do brushing their teeth, morning and night, and then I switch off with them." "He brushes, he loves it, he does it five, six times a day." "My girl always wants to floss."
No need to brush after meals (0%; no women were unaware that children should brush after meals)	"They finish their breakfast and brush." "They do come home and eat and then say, 'Mom I want to brush my teeth.'"
Feeding lots of sweets (4%; most women were aware that sweets could contribute to decay)	"Like we would reduce the candy . . . warm milk, but we wouldn't mix it with chocolate or nothing like that."
Experience as a barrier	
Separation from caregiver (61% reported being separated from their young child)	"They don't let you go in with them. They tell you that I can't go in with them, but they're going to take them, and you have to wait on the outside." "And then mostly because they told me that I can't go in with her, she's going to go in by herself. That freaks her out."
Restrained (61% reported their child being held down, tied down, or professionally restrained)	"They put her arms in a pillowcase and had her sit in the chair like this so she couldn't move her arms, and then somebody sat on her legs. So she was like really scared to death at the dentist." "So they do restrain her. Like they do the restraining with the head and she hates the dentist." "Since she was small, she cried a lot, they had to hold [tie] her down. It was very traumatizing." "And then five people helped. Somebody laid down. Another person, they laid her on top of somebody so they could hold her. Another person pulled her. It was like five people holding her down. And with pliers they went in and pulled." [extracting a tooth from a 13-mo-old]
Medication (21%)	
Too much medication (12% of women reported that their children were too sedated after treatment, with the sedation often lasting all day or requiring the child to be carried out, and that they were unable to bring more than 1 child to the dentist at a time due to sedation)	"It was a liquid that she took. She could only move her eyes. And it made me sad. . . . But afterwards, at home, it was terrible. . . . She wanted to walk but she couldn't and then she wanted to run . . . or play and she couldn't. I had to hold her in my arms or sit with her. But, they fall . . . I put her in the swing . . . then she fell and she couldn't stand." "So they told me, 'We'll take them all, we'll take them all four at the same time,' [but I'm] like, no, because I don't have anybody to help me. . . . The truth is, they're drowsy and I'm like, oh my God, the first time, the first time, you know, and you can see them over there playing. I've got one son, all like, drowsy and the other son, my older one, is like, 'Mama, I don't feel so good.'"

(*continued*)

Table 2 (*Continued*)

Barriers	Focus Group Comments
Not enough medication (9% of the women discussed their child feeling too much pain or being too alert during dental procedures)	"I heard my daughter crying and screaming and I said I thought they were put to sleep. And they didn't let me stay, either." "They had to restrain her, too. Supposedly they sedate them but it's not true. They are conscious of what they are doing. The only thing they do is numb the body so they don't move. Because I heard my daughter cry and scream."
Incomplete/poor treatment (9%; 3 women described treatment not being completed in 1 visit and/or having such an upsetting experience that the child was removed prior to completion of treatment)	"I took her the first time when she was one, and they actually told me she had a cavity in the middle of her teeth, so they just scraped it out. . . . But they didn't finish like the whole process. They told me to come next week so they could fill it up. So while she was sleeping, pieces of her teeth broke off. So I was really mad. I went back there, and they told me, 'We can't do nothing about it.'" "I was like I'm going in, and they're like, 'Wait until they come out,' I said, no, I'm going in, and I went in, and my daughter's all tied up. She was tied up, and they was 'Don't worry, you can't hear her crying.' When I went in . . . she was tied up, and the dentists were, like, talking . . . and my daughter was, like, she couldn't even cry anymore. She seemed to be crying, she wasn't even crying no more and she was like, purple. I was really mad. I just got my daughter and went out."
Extraction without consent (3%; 1 woman described the extraction of 4 front teeth without consent; 29% had a young child whose front teeth had been pulled)	"So we took her in, 'cause she had like a little piece missing so we went then, and they told us, 'Okay, we could fix it,' . . . and so when she came out, the four teeth from the front were missing. . . . And when she came out, like, I [asked] what happened? Like, 'Oh, the doctor took another emergency re-evaluation.' So I didn't know if that was right."

Table 3. Characteristics of Survey Participants (N = 1184)

Characteristic	Value
Age range (y)	19–69 (mean, 34; SD, 6.90)
Gender, n (%)	
Female	1044 (88)
Male	96 (8)
Unknown	44 (4)
Number of children	1–10 (mean, 2.4; SD,1.24)
Race/ethnicity, n (%)	
Latino	804 (68)
Caucasian	159 (14)
Asian	135 (11)
Other/multiracial/unknown	86 (7)
Education, n (%)	
Less than high school	322 (27)
High school diploma/ GED certification	251 (21)
Some college or higher	564 (48)
Other/unknown	47 (4)
Income, n (%)*	
<$12,000	284 (24)
$12,000–$20,000	316 (27)
$21,000–$30,000	225 (19)
$31,000–$40,000	81 (7)
$41,000–$50,000	31 (3)
$51,000–$75,000	35 (3)
>$75,000	158 (13)
Other/unknown	54 (5)
Language preferred, n (%)	
English	395 (33)
Spanish	389 (33)
Bilingual English/Spanish	258 (22)
Vietnamese	58 (5)
Other/unknown	84 (7)

GED indicates General Education Development; SD, standard deviation.

*Due to rounding, percentages do not add up to 100%.

as likely to be restrained than children of other ethnicities (OR, 1.89; $P < .0001$), and Caucasian families were significantly less likely to have their children restrained (OR, 0.55; $P = .03$).

MEDICATION

Half (49.6%) of caregivers reported that their child had been given sedatives, including "gas" (nitrous oxide), "shots" (lidocaine), or "drowsy juice" (benzodiazapines), for cleanings (26%), fillings (73%), or extractions (72%). Recovery time ranged from less than 30 minutes to more than 6 hours, with 10% reporting that it took more than 6 hours for the medication to "wear off." Latino children and children whose family incomes were under $50,000 were significantly more likely to be medicated at the dentist (OR, 1.93 (Latino); OR, 1.54 (income); $P < .01$). Eight percent of these caregivers reported not being asked permission prior to their child being given medication, which was 4.95 times more likely for Asian families ($P < .0001$). Fifteen percent of caregivers whose children had an extraction reported that the child felt more pain than was necessary, and 8% reported an extraction being performed without an explanation from the dentist.

NEGATIVE EXPERIENCES

Many caregivers (15%) reported experiences that they called negative, with 22% stating that the experience made them not want to return to the dentist. Fifteen percent described being upset by something that happened, 8% reported teeth being drilled but not filled in the same visit, and 3% reported being upset enough to remove their child prior to the completion of treatment. Caucasian

Table 4. Frequencies of Experiences Reported by All Caregivers and Chi-Square Comparisons by Income, Race/Ethnicity, and Language

		Income‡		Race/Ethnicity§			Language‖		
	Full Sample† (N = 1184)	<$50,000 (n = 924)	>$50,000 (n = 128)	Latino (n = 804)	Asian (n = 132)	Caucasian (n = 159)	English (n = 653)	Spanish (n = 388)	Vietnamese (n = 30)
Separated	66%	67%	58%	69%	50%	43%	35%***	54%***	50%***
Cleaning	21%	23%***	11%***	24%***	19%***	12%***	34%***	52%***	47%***
Filling	38%	40%*	27%*	41%***	33%***	21%***	24%*	46%*	30%*
Extraction	31%	32%	30%	33%	24%	23%	13%	21%	7%%
During restraints	9%	26%	16%	10%	4%	4%	15%	25%	23%
Hear cry waiting room	17%	19%*	12%*	19%*	22%*	11%*	15%*	19%*	30%*
Restrained	25%	27%*	19%*	29%**	20%**	17%**	23%+	29%+	30%+
Cleaning	21%	7%	7%	7%**	11%**	8%**	21%*	28%*	30%*
Filling	77%	17%***	7%***	19%*	10%*	8%*	16%	25%	13%
Extraction	46%	7%	3%	8%+	2%+	2%+	8%	13%	3%
Not asked permission	9%	9%	5%	11%*	1%*	3%*	5%**	12%**	3%**
Not explained why	8%	9%	5%	12%*	3%*	3%*	6%***	14%***	6%***
Not asked to help calm	8%	9%	5%	11%	4%	4%	5%**	12%**	10%**
Professional straps	16%	18%***	9%***	20%**	11%**	13%**	14%*	18%*	20%*
Held down by staff	9%	9%*	5%*	6%*	4%*	2%*	3%**	7%**	10%**
Medication	50%	51%+	40%+	54%***	36%***	35%***	47%***	62%***	43%***
Cleaning	26%	23%	19%	26%**	15%**	14%**	42%***	57%***	40%***
Filling	73%	43%	34%	45%***	32%***	31%***	38%*	52%*	33%*
Extraction	72%	20%	13%	22%***	10%***	9%***	18%	25%	10%
Without consent	8%	4%	2%	3%***	11%***	3%***	3%***	3%***	23%***
Drill without filling tooth	8%	9%	6%	9%	4%	8%	7%	10%	0%
Removed during treatment	3%	3%	2%	3%	2%	3%	3%	3%	3%
Upset by experience	15%	15%	12%	17%*	11%*	9%*	13%*	19%*	10%*
Happy about experience	78%	76%***	91%***	77%**	86%**	87%**	82%*	76%*	87%*
Dentist not good with kids	16%	17%	13%	18%	11%	14%	13%**	20%**	7%**
Dentist excellent with kids	85%	85%*	91%*	86%**	79%**	72%**	89%	87%	77%
Educated by staff (brushing, eating)	89%	82%**	97%**	91%	90%	94%	85%**	79%**	67%**
Did not want to return	22%	23%*	16%*	25%***	19%***	13%***	18%**	26%**	10%**
Child given toys, stickers, rewards	93%	94%*	98%*	95%	95%	96%	96%	93%	93%

Chi-square comparisons; $+P < .06$, $*P < .05$, $**P < .01$, $***P < .001$.

†Calculated with the full sample as the denominator, even if specific service was not done (eg, medication for cleaning, even if not all had teeth cleaned).

‡Total does not equal 1184 due to some respondents refusing to answer the income question.

§Total does not equal 1184 due to other ethnic and racial groups (eg, African American, Native American, Pacific Islander, multiethnic).

‖English includes respondents that are bilingual; total does not equal 1184 due to other languages spoken.

caregivers were significantly less likely to report being upset (OR, 0.42; $P = .006$), and Spanish-speaking caregivers were the most likely to report being upset (OR, 2.24; $P = .007$). Sixteen percent of caregivers reported that they did not feel that "the dentist was good at working with children," and this perception did not differ by income or ethnicity.

Positive Experiences

Most caregivers also reported having had a positive experience at the dentist. Seventy-five percent reported having had a pleasant experience that made them want to return to the dentist, 94% reported that the dentist gave rewards to their child (eg, toys, stickers), and 90% reported being taught by the dentist or dental staff about avoiding sweets and how to brush. Positive experiences were reported most often by Caucasian caregivers, who were 2.26 more likely to have an experience at the dentist that made them happy ($P = .01$). Spanish-speaking caregivers were far less likely to report experiences that made them happy (OR, 0.48; $P = .003$).

Discussion

There are well-documented disparities in oral health and oral health care utilization for children based on income, ethnicity, and language.[7,10,22] Research (including state and federal surveys) consistently measures the same sources of barriers and facilitators, such as issues of access (from available providers to parental work schedules), cost, transportation, and parental knowledge, beliefs, and practices.[23,24] Absent from the majority of research is the role that dentists and staff play in hindering or facilitating children's utilization of oral health care. Our data suggest that caregivers' experiences may affect dental service utilization.

Implicit Bias in Health Care

In medicine, efforts have been made to address the role that implicit bias may have in health care utilization and health outcomes. An Institute of Medicine report on racial and ethnic disparities in health care included evidence of provider bias, stereotypes, and prejudice contributing to disparities and pointed out the need for increased cultural competence in training and practice.[25] However, such efforts have rarely been made in dentistry[26]; instead, dental programs have discretion over whether to offer coursework on cultural competence,[27] and a survey of dental schools found that less than 18% offered such a course.[28]

Communication

Research has consistently documented the importance of provider-parent and provider-patient communication for supporting children's health and the impact that poor communication can have on care.[17,29–31] In the area of dentistry, low-income mothers have reported poor interactions, such as dental staff being rude,[32] and feeling that care was inferior or second class.[14] A review of studies on dental communication practices found that dental providers who are more empathetic have children with fewer dental fears or anxieties.[31] Additionally, a survey of Latina mothers found that those who reported satisfactory communication with their children's dental provider were twice as likely to return to that provider.[33] Our findings that non-Caucasian and low-income children were significantly more likely to be separated from their caregiver, restrained, and treated without caregiver consent demonstrate poor communication between providers and parents.

Developmentally Appropriate Practice

The frequent use of restraints, especially with non-Caucasian children, might also be a consequence of providers not knowing how to engage with children in developmentally appropriate ways that support patient compliance. The Commission on Dental Accreditation requirements for pediatric clinical experience are at the discretion of each program with no explicit standard for pediatric clinical experience.[27] In a survey of 48 dental schools, only 25% provided clinical training on pediatric behavior guidance,[34] and a survey of US dentists found that 85% did not feel adequately prepared in dental school to treat young children.[35] Although dental school graduates are licensed to treat all ages, their training may not cultivate the necessary skills for working with young children and diverse families. As such, the developmentally inappropriate ways they engage with families may be an obstacle to dental care and, thus, to pediatric oral health.

Many of the experiences shared in the focus groups, and verified as common in the survey, are traumatic events. A child being separated from his/her parent and tied to a chair (or held down by several people) to have a tooth extracted without anesthesia is a violent event for both the child and mother, who feels powerless to protect her child. Such an experience may hinder a family from returning to the dentist, and sharing this experience with family and friends might reduce the likelihood of others taking their children to the dentist. Two other qualitative studies have noted that low-income and ethnically diverse families have negative experiences at the dentist[13,14]; yet, the role of dentists and their staff in facilitating or hindering care is not systematically studied. Our data suggest that they should be.

Limitations

This study has several limitations. First, given the demographic characteristics of Southern California and our interest in these populations, we oversampled families that were low income and Latino (English and Spanish speaking). This limits our generalizability of differences noted by income, ethnicity, and language but documents the high prevalence of these experiences for Latino families, non-English speakers, and families with annual incomes less than $50,000. Second, although parental income is a predictor of oral health,[36] education was highly correlated with income, thus limiting our ability to disentangle the relationship of these characteristics with dental experiences. Third, we focused exclusively on dental experiences, not oral health; for example, we recorded caregivers' experiences with extraction of their children's

teeth but not the reason why it was necessary (eg, trauma, decay). Finally, we did not look at payment, reimbursement rates, or the ways in which cost might influence experiences such as prevalence of medication use or extractions.

Future Directions

Increasingly, research-identified barriers appear to be less important contributors to pediatric oral health; for example, Medicaid expansion has greatly increased children's oral health care coverage,[10,22] but utilization of services and health outcomes have not matched that growth.[10,37] Urban areas such as California have sufficient numbers of Medicaid-accepting dentists,[38,39] but such access has neither increased utilization much[39] nor decreased disparities.[6] Further, dentist density and Medicaid access are less impactful when child age and other within-family characteristics are considered.[14,40] Caregivers in our focus groups were knowledgeable of how to brush, which foods and feeding practices to avoid, and how frequent dental care should be utilized—from establishing a dental home to the frequency of cleanings. Although parental knowledge has been associated with children's oral health care,[41] demographic characteristics (eg, race, income, migration, language) predict oral health and utilization more.[7,8,11] Still, oral health disparities persist,[2,8,10,22] and few studies consider the differences in dental experiences.

Our findings demonstrate the importance of considering family experiences at the dentist and their children's continued utilization of dental care. Because many families have more than one child, families' experiences could serve as barriers to sibling dental care initiation and continuation, as well. Research has demonstrated the importance of word of mouth for medical utilization,[16] so negative experiences could serve as barriers to utilization for other children in low-income communities. Researchers interested in improving children's oral health and eliminating disparities must consider the role of caregiver experience in access and utilization and address issues of dentist training with regard to 1) working with young children, 2) interacting with diverse families, and 3) identifying ways in which bias may alter the quality of care.

Importance for Pediatricians

Pediatricians who refer families to dental care or treat children with unmet dental needs should be aware of the breadth of negative experiences that families may have at the dentist for several reasons. First, pediatricians typically have contact with families prior to dentists (infant well-visits) and see families more often. As such, they can educate caregivers about how to select a dentist (eg, pediatric trained) and their rights when taking their children to a medical professional (eg, requirement for consent for restraint or medication, right to decline separation). Second, as pediatricians have continued contact with families, they should ask families about their experiences at the dentist and actively address negative experiences that might be an obstacle to care. Third, when physicians have young patients with unmet oral health need (eg, untreated caries), even after referrals to care, they should talk with families explicitly about dental fears and anxieties that might be barriers to care. Finally, as a pediatric specialty with rigorous training standards, pediatricians should refer their patients to dental providers with pediatric training—either pediatric dentists or graduates from dental programs with pediatric clinical experiences.

Conclusions

This mixed-method, exploratory, sequential study demonstrates the need to include the experiences of low-income and ethnically and linguistically diverse families at the dentist. From these data, it is clear that minority families and those with low incomes have negative experiences at the dentist, a finding that seems to differ significantly from the experiences of higher income, Caucasian, and English-speaking families. This is especially important given the American Academy of Pediatrics recommendation that all children have a dental home by age 1[42] and the potential risk that upsetting dental experiences could result in reduction of future pediatric health care.[15] In order to reduce pediatric oral health disparities, the role of the dentist and their staff must be considered.

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