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DENTAL DISPARITIES BY INCOME, ETHNICITY & LANGUAGE

Disparities in Caregivers' Experiences at the Dentist with their Young Child

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Abstract

Objective: To understand the experiences that diverse families have when taking their young child to the dentist and document their prevalence. **Study Design:** An exploratory sequential design was used. First, four focus groups (n=33) with low-income female caregivers of children under 6 years were done 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, and Vietnamese.

Results: Thematic coding of focus groups found little support for typically reported barriers to pediatric oral healthcare utilization (e.g., transportation, cost, knowledge). Instead, caregivers reported negative experiences (e.g., restraint, separation) to be barriers. From the surveys, 66% of caregivers reported being separated from their child, 25% reported that their child was restrained (53.7% for cleanings), 26% of children were given sedating medication for cleanings, and 22% reported experiences that made them not want to return to the dentist. The prevalence of these experiences significantly differed between 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 healthcare utilization among diverse families.

What's New: This paper demonstrates the prevalence of developmentally inappropriate dental care for low-income and minority children when visiting the dentist and suggests that higher-income and majority families have higher quality experiences, which may contribute to disparities in utilization of dental services.

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Introduction

Attention is increasingly being focused on the oral health of children, as poor early oral health predicts future dental disease, contributing to cascading healthcare 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 between 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 healthcare utilization, including payment and access (e.g., insurance issues, few Medicaid-accepting providers), transportation challenges, and parental knowledge, beliefs, and practices around 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 initiating care with a specific provider based on the suggestions or warnings of friends or family members.^{15,16} Flores and Vega's review of barriers to Latino children's healthcare utilization found that caregivers' lack of confidence in healthcare staff was a major barrier to accessing medical care.¹⁷ 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 healthcare 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 globally¹⁷ and children's holistic health. To

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better understand experiences with oral health care, we conducted exploratory focus groups with low-income families about barriers and facilitators that were then used to develop a survey interview, 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,¹⁹ yet the majority of kindergarteners have experienced tooth decay and 1/3 have untreated decay.¹⁹ Given that improvements in coverage and access for families with low incomes have not improved children's oral health much¹⁰, we sought to identify other potential barriers and facilitators to oral healthcare for young children.

Method

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 findings to develop a survey interview. All research procedures were reviewed and approved by a university Institutional Review Board.

Focus Groups

Focus groups (2 English, 2 Spanish) were held in four cities in Southern California with low-income (<130% the poverty line), female caregivers (n=33) with at least one child in a federally-funded preschool. Participants were recruited through four preschools (one per city) 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

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when needed. Participants were asked about their experiences taking their child to the dentist and what increased or reduced their likelihood of going. They were asked about their knowledge of oral healthcare 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 child to the dentist.

Using in-depth coding and thematic interpretation,²⁰ transcripts were coded for a-priori defined themes from the literature (e.g., 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 caregivers' experiences when taking their child 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 with other caregivers. Thus, we created a survey based on the focus-group-identified themes that asked about caregivers' experiences when taking their child for dental cleanings, fillings, and extractions as well as general experiences at the dentist. Since 12% of 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 focus groups (e.g., "drowsy juice", "de leche") and once drafted, cognitive interviewing procedures²¹ were used to assess whether items were interpreted as intended, if much cognitive effort was required to answer them, and if there were

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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 (e.g., no extraction, skip section), with a minimum of 30 questions asked.

Once we began collecting data, we identified some Vietnamese caregivers at our recruitment sites that 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 child 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 non-low-income caregivers to assess potential disparities in experiences. Respondents were given a children's book or small gift worth \$1-2 (sunglasses, flashlight) for completing the survey.

Caregivers were interviewed by one of sixteen bilingual and bicultural interviewers from May 2016-June 2018. Recruitment occurred in two ways. 1) Caregivers were approached in public spaces and told that university researchers are 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 took 5-10 minutes and they would receive a small gift for participating. 2) Family-health coordinators at federally-funded preschoolers 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

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completed at federally-funded preschool centers (99% response rate) and the rest were completed in public spaces (e.g., parks, malls), pediatric clinics, emergency room waiting areas, and a children's museum, with 65-100% of those approached in each setting agreeing to participate. Since our primary aim was to document the prevalence of various experiences among low-income families and secondarily, compare with 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 (e.g., child restraint without consent, caregiver separation) based on demographic characteristics (e.g., race/ethnicity (White, Latino, Asian, Other), income (less than \$50,00 or more), language spoken (English, Spanish, Vietnamese, other)). As this was an exploratory study, no hypotheses were tested. All data were analyzed using STATA 14.0.

Results

Focus groups

There were 33 participants in the focus groups (see table 1 for details). All were female, primary caregivers (30 mothers, two grandmothers, one great-grandmother). Focus group discussions indicated that few caregivers experienced the types of barriers that other studies and national surveys have documented (e.g., cost constraints, access to providers, 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

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under-use of medication, lack of communication, and treatment without consent. See table 2 for sample quotes by barrier type.

[insert tables 1 and 2]

Survey

Given that the focus groups identified negative experiences that could serve as barriers to children's receipt of timely oral healthcare 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 mentioned in the focus groups. Caregivers (n=1184) of young children were interviewed. Low-income, Latino parents were disproportionately sampled, with respondents ranging in annual family income from less than \$12,000 to over \$75,000. Table 3 describes the sample characteristics.

[insert table 3]

All survey respondents had taken their child to the dentist at least once; 94% for a cleaning, 53% for a filling, and 23% for an extraction. See table 4 for details.

[insert table 4]

Separation

Caregivers were asked if they were ever separated from their child for dental services. Sixty-six-percent reported being separated, with 21% for cleaning, 38% for fillings, and 31% for extractions. Additionally, 18% reported hearing their child crying from the waiting room, with Caucasians caregivers being the least likely to have that experience (OR=0.56, p=0.05). This likelihood was further reduced if the Caucasian family had an annual income over \$50,000 (OR=0.15, p=0.01). Spanish-speaking caregivers were almost three times more likely (OR=2.92, p<0.0001) and Vietnamese-speaking caregivers twice as likely (OR=2.01, p=0.02) to report

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hearing their child cry from the waiting room than English-speaking families.

Restraints

A quarter of caregivers reported that their child had been restrained at the dentist, with 54.1% of those restrained for cleaning, 77.5% for fillings, and 46.1% for extractions. The most commonly used restraints were professional restraints (e.g., papoose board, soft restraints; 84% of those restrained), followed by staff or dentist holding down the child (68%), and other materials (e.g., pillowcases 16%). A quarter of the caregivers whose child was restrained reported not being asked permission to use restraints, 27% were not told why their child was being restrained, and 25% were not asked to help calm the child prior to using restraints. In comparing rates of restraint by income, children with family incomes of less than \$50,000 were 1.63 times ($p=0.01$) more likely to be restrained than those with family incomes over \$50,000. In comparing ethnicity, Latino children were almost twice as likely to be restrained than children of other ethnicities ($OR= 1.89, p<0.0001$) and Caucasian families were significantly less likely to have their child restrained ($OR=0.55, p=0.03$).

Medication

Half (49.6%) of caregivers reported that their child had been given sedatives (e.g., “gas” [i.e., nitrous oxide], “shot” [e.g., Lidocaine], “drowsy juice” [e.g., benzodiazapines]), with 26% of these getting medication for cleanings, 73% for fillings, and 72% for extractions. Recovery time ranged from less than 30 minutes to more than 6 hours, with 10% reporting more than 6 hours for medication to “wear off.” Latino children and those with incomes under \$50,000 were significantly more likely to be medicated at the dentist ($OR = 1.93$ (Latino), 1.54 (income), $p<0.01$). Eight-percent of these caregivers reported not being asked permission prior to their child being given medication and this was 4.95 times more likely for Asian families ($p<0.0001$).

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Fifteen-percent of caregivers whose child had an extraction reported that their child felt more pain than was necessary and 8% reported an extraction without explanation from the dentist.

Negative experiences

Many caregivers (15%) reported negative experiences, 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 caregivers were significantly less likely to report being upset (OR=0.42, p=0.006) and Spanish-speaking caregivers were the most likely to report being upset (OR=2.24, p=0.007).

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 dentists. 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 (e.g., 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=0.01). Spanish-speaking caregivers were far less likely to report experiences that made them happy (OR=0.48, p=0.003).

Discussion

There are well-documented disparities in oral health and oral healthcare 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

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access (from available providers to parental work schedules), cost, transportation, and parental knowledge, beliefs, and practices^{e.g.,23,24}. Absent from the majority of research is the role that dentists and staff play in hindering or facilitating children's oral healthcare use. These data suggest that caregivers' experiences may affect dental service utilization.

Implicit bias in healthcare

In medicine, efforts have been made to address the role implicit bias may have in healthcare utilization and health outcomes. The Institute of Medicine (IOM) report on racial and ethnic disparities in healthcare included evidence of provider bias, stereotypes, and prejudice contributing to disparities and 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 competence²⁷ and a survey of dental schools found 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 risks 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 rude³² 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-white and low-income children were significantly more likely to be separated from their caregiver, restrained, and treated without caregiver consent (restraints, medication, and extractions) demonstrate poor communication between providers and parents.

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Developmentally Appropriate Practice. The frequent use of restraints, especially with non-White 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 (CODA) 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, tied to a chair (or held down by five people) while his/her teeth are extracted without anesthesia is a violent event for both the child and mother, who feels powerless to protect her child. Such an experience may prohibit 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,^{e.g.,^{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, we oversampled families that were low-income and Latino (English- and Spanish-speaking), given the demographic characteristics of Southern

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California and our interest in these populations. 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, limiting our ability to disentangle the relationship of these characteristics with dental experiences. Third, we focused exclusively on dental experiences, not oral health. For instance, we recorded caregivers' experiences with extraction of their children's teeth, but not the reason (e.g., trauma, decay) or actual need. Lastly, 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 instance, Medicaid expansion has greatly increased children's oral healthcare coverage,^{10,22} but utilization of services and health outcomes have not matched that growth.^{10,37} In urban areas like California, there are sufficient numbers of Medicaid-accepting dentists,^{38,39} but such access has not increased utilization much³⁹ or 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. While parental knowledge has been associated with children's oral healthcare,⁴¹ demographic characteristics (e.g., 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.

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Our findings demonstrate the importance of considering family experiences at the dentist and their children's continued utilization of dental care. Since many families have more than one child, families' experiences could serve as barriers to sibling dental care initiation and continuation as well. As research has demonstrated the importance of word-of-mouth for medical utilization,¹⁶ 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 as well as address issues of dentist training for 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 and/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 caregiver about how to select a dentist (e.g., pediatric trained) and their rights when taking their child to a medical professional (e.g., 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 (e.g., untreated caries), even after referrals to care, they should talk with families explicitly about dental fears and anxieties that might be barriers to care. Lastly, 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

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clinical experiences.

Conclusion

This mixed-method exploratory sequential study demonstrates the need to include the experiences of low-income, ethnically, and linguistically diverse families at the dentist. From these data, it is clear minority families and those with low incomes have negative experiences at the dentist, which seem 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 one⁴² and the potential risk that upsetting dental experiences could result in reduction of future pediatric healthcare.¹⁵ In order to reduce pediatric oral health disparities, the role of the dentist and their staff must be considered.

ACCEPTED MANUSCRIPT

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

Age	21-57 years ($M=31$, $SD=9.02$)
Number of children	1-6 children ($M=2.7$, $SD=1.34$)
Race/ethnicity	
Latino	29 (88%)
African-American	2 (6%)
Caucasian	2 (6%)
Education	
Less than High School	7 (21%)
High School Diploma or GED	16 (49%)
Some college or higher	10 (30%)
Language Preferred	
English	15 (45%)
Spanish	18 (55%)

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Table 2. Presence of traditional and experiential barriers from focus groups

Traditional Barrier	
<p>Cost/Payment concerns (0% - all women had Medicaid or insurance)</p>	<p><i>Medi-Cal sends us where we can go. There are several places and you choose where.</i></p> <p><i>Mine [insurance] cover everything.</i></p>
<p>Lack Access</p> <p><u>Don't know how to find</u> (0% - all women reported finding dentists easily, through referrals from family, friends, WIC clinics, homeless shelters, preschools, and Medi-Cal)</p> <p><u>Transportation issues</u> (0% - all women lived near the dentist or had access via car or bus)</p>	<p><i>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.</i></p> <p><i>It's close by for me</i></p>
<p>Lack Knowledge</p> <p><u>Timing for cleaning</u> (0% - all women knew about twice yearly cleanings)</p> <p><u>When to see a dentist</u> (0% - all when they were supposed to first take their child to the dentist, but many did not adhere to that recommendation)</p> <p><u>Problems with bottles and milk</u> (6% - two women admitted to previously not knowing that bottles were bad for teeth)</p>	<p><i>Every six months [cleaning]</i></p> <p><i>He was three when he visited the dentist first</i></p> <p><i>My kids started as soon as I saw teeth. So by one</i></p> <p><i>Even at the WIC, they tell you, no more drinking bottled milk</i></p>
<p>Beliefs</p> <p><u>Brushing not important</u> (0% - all women thought brushing was very important)</p> <p><u>Primary teeth not important</u> (6% - only two women mentioned ever thinking that milk teeth (de leche) were unimportant)</p>	<p><i>'cause if you don't do them [brush], 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.</i></p> <p><i>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.</i></p> <p><i>it's not really like that, because even though they are "de leche" you have to treat them well.</i></p>
<p>Practices</p> <p><u>Not brushing teeth regularly or</u></p>	<p><i>All three, they do, brushing their teeth, morning and</i></p>

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<p><u>flossing</u> (0% - all women discussed their children brushing regularly)</p> <p><u>No need to brush after meals</u> (0% - no women were unaware that children should brush after meals)</p> <p><u>Feeding lots of sweets</u> (4% - most women were aware that sweets could contribute to decay)</p>	<p><i>night, and then I switch off with them.</i></p> <p><i>He brushes, he loves it, he does it five, six times a day.</i></p> <p><i>My girl always wants to floss</i></p> <p><i>They finish their breakfast and brush</i></p> <p><i>They do come home and eat and then say “mom I want to brush my teeth”</i></p> <p><i>Like we would reduce the candy...warm milk, but we wouldn't mix it with chocolate or nothing like that.</i></p>
Experience as a Barrier	
<p>Separation from caregiver (61% - most women reported being separated from their young child)</p>	<p><i>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.</i></p> <p><i>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.</i></p>
<p>Restrained (61% - held down, tied down, or professionally restrained)</p>	<p><i>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.</i></p> <p><i>So they do restrain her. Like they do the restraining with the head and she hates the dentist.</i></p> <p><i>Since she was small, she cried a lot, they had to hold [tie up] her down. It was very traumatizing.</i></p> <p><i>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 month old]</i></p>
<p>Medication (20%)</p> <p><u>Too much medication</u> (12% - women reported that their children were too sedated after treatment, often lasting all day and/or requiring the child to be carried out. Women reported being unable to bring more than one child to the dentist at a time due to sedation)</p>	<p><i>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.</i></p> <p><i>So they told me, “We'll take them all, we'll take them all four at the same time,” like, “No, because I don't have</i></p>

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<p><u>Not enough medication</u> (9% - some women discussed their child feeling too much pain or being too alert during dental procedures)</p>	<p><i>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</i></p> <p><i>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.</i></p> <p><i>They had to restraint 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.</i></p>
<p>Incomplete/poor treatment (9% - 3 women described treatment not being completed in one visit and/or having such an upsetting experience that the child was removed prior to completion of treatment)</p>	<p><i>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></p> <p><i>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...And 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.</i></p>
<p>Extraction without consent (3% - one woman described the extraction of four front teeth without consent. 29% had young child whose front teeth had been pulled)</p>	<p><i>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 tooth from the front were missing...And when she came out, like, I got like, “What happened?” Like, “Oh, the doctor took another emergency revelation.” So I didn’t know if that was right.</i></p>

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

Age	19-69 years ($M=34$, $SD=6.90$)
Gender	
Female	1044 (88%)
Male	96 (8%)
Unknown	44 (4%)
Number of children	1-10 children ($M=2.4$, $SD=1.24$)
Race/ethnicity	
Latino	804 (68%)
White	159 (13%)
Asian	132 (11%)
Other/Multiracial/Unknown	123 (8%)
Education	
Less than High School	322 (27%)
High School Diploma/GED	251 (21%)
Some college or higher	564 (48%)
Other/Unknown	47 (4%)
Income	
Less than 12k	284 (24%)
12-20k	316 (27%)
21-30k	225 (19%)
31-40k	81 (7%)
41-50k	31 (2.6%)
51-75k	35 (3%)
More than 75k	158 (13%)
Other/Unknown	54 (4.5%)
Language Preferred	
English	395 (33%)
Spanish	389 (33%)
Bilingual English/Spanish	258 (22%)
Vietnamese	58 (5%)
Other/Unknown	84 (7%)

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Table 4. Frequencies of experiences reported for by all caregivers and chi square comparisons by income, race/ethnicity, and language

	Full ¹ Sample (n=1184)	Income ²		Race/Ethnicity ³			Language ⁴		
		<\$50K (n=924)	>\$50K (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 explain 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 w/out filling tooth	8%	9%	6%	9%	4%	8%	7%	10%	0%
Removed during Tx	3%	3%	2%	3%	2%	3%	3%	3%	3%
Upset by experience	15%	15%	12%	17%*	11%*	9%*	13%*	19%*	10%*
Happy by experience	78%	76%***	91%***	77%**	86%**	87%**	82%*	76%*	87%*
Dentist not good w/ kids	16%	17%	13%	18%	11%	14%	13%**	20%**	7%**
Dentist excellent w/ kids	85%	85%*	91%*	86%**	79%**	72%**	89%	87%	77%
Educated by staff (brushing, eating)	89%	82%**	97%**	91%	90%	94%	85%**	79%**	67%**
Not wanted to return	22%	23%*	16%*	25%***	19%***	13%***	18%**	26%**	10%**

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Child given toys, stickers, rewards	93%	94%*	98%*	95%	95%	96%	96%	93%	93%
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*Chi*² comparisons, +p<.06, *p<.05, **p<.01, ***p<.001

Notes: ¹Calculated with the full sample as the denominator, even if specific service was not done (e.g., medication for cleaning, even if not all had teeth cleaned) ²Total does not equal 1184 due to some respondents refusing to answer income question ³Total does not equal 1184 due to other Ethnic and Racial groups (e.g., African American, Native America, Pacific Islander, Multiethnic) ⁴English includes respondents that are bilingual; Total does not equal 1184 due to other languages spoken