Oral Health Experiences of Social Workers Serving Children in the Foster Care System: Assessing the Feasibility of a Social Worker-Driven Oral Health Intervention

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Abstract

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Summary*:* The objectives of this study were to determine the oral health knowledge, attitudes, and practices of social workers working within the foster care system and to assess the preliminary feasibility of a social worker-driven intervention aimed at improving the oral health of children in foster care. This qualitative study conducted semi-structured key informant interviews with social workers that work with families of children in foster care in Washington State (N=20). The Extended Parallel Process Model was used to develop an interview script and to code the transcripts.

- Findings: It is generally understood by social workers that children in foster care have increased dental disease and increase dental need that has gone untreated. Social workers would benefit from educational courses, either in person or online, on assessing dental health in order to deliver oral health intervention to foster parents during home visits. Foster parents would benefit from an oral health education course during their regular training or as a continuing education course provided by a social worker or an online education course.
- Applications: Social workers could improve the oral health of children in foster care by delivering oral health education to foster parents during home visits and during foster parent training.

Keywords

Social Work, Social Work Practice, Dentistry, Foster Home Care, Dental Health Survey, Oral Health, Qualitative Research, Oral Health Experiences

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Introduction

Prevalence of Children in Foster Care, Demographic Profile, and Risk Factors

There are over 415,000 children in the U.S. foster care system and recent data suggest that this number is growing (The AFCARS Report FY 2014). Over 260,000 children entered the foster care system in 2014, with over 238,000 children exiting the same year (The AFCARS Report FY 2014). The mean age of children in foster care was 8.7 years and 75% of children in foster care lived within a foster family setting; other settings including group homes, institution, or pre-adoptive homes (The AFCARS Report FY 2014). Over 40% of children in foster care in 2014 were White, while 24% were Black or African American and 22% were Hispanic (The AFCARS Report FY 2014). Many factors lead to children being placed in foster care, including parents with substance abuse issues, mental illness, and active domestic violence, as well as neglect, abuse, poverty, child's substance abuse, and homelessness (Barth 2006, American Academy of Pediatrics (AAP) 2005, and Curtis 1999). Additionally, non-normative sexual or gender identity can be a risk factor for entering foster care. The National Network of Runaway and Youth services stated that 20-40% of homeless youth identify as lesbian, gay, bi-sexual, transgender, or queer (LGBTQ), with many entering foster care during their time as homeless (Youth Homelessness in America 2014). LGBTQ homeless youth are more likely to have out-of-home placement, including foster care, than heterosexual homeless youth (Hooks Wayman 2008).

Overall Health of Children in Foster Care

The American Academy of Pediatrics (AAP) considers all children in foster care as Children with Special Health Care Needs (CSHCN), and defines them as "children who have or are at

increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (AAP 2005, McPherson 1998). CSHCN require specialized knowledge for treatment and additional measures beyond what would be considered routine for children (American Academy of Pediatric Dentistry Reference Manual).

According to the Congressional Research Service, a think tank for the U.S. Congress, in 2012, 35%–65% of children in the foster care system have at least one chronic physical health condition that requires treatment. Respiratory infections, fevers, and ear infections were the most common condition in children in foster care (Center for Mental Health Services and Center for Substance Abuse Treatment). Children in foster care have higher rates of multiple, chronic, and mental health medical health problems when compared to children not in foster care (Halfon 1992 and Halfon 1995). A recent policy statement by the AAP stated that, 80% of children and adolescents in foster care have a significant mental health need and 40% have significant oral health issues (AAP 2015). When compared to children not in foster care, those children have a higher prevalence of developmental disorders, disorders of the teeth and jaw, attention deficit, conduct and disruptive disorders, and adjustment disorders (U.S. Congress House 2012).

Health Service Utilization of Children in Foster Care

Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) is a federal program that mandates all children in foster care seek medical and dental care within thirty days of placement in a foster care home (AAP 2005). However, one study found that only 1% of children in foster care in New York, Los Angeles, and Philadelphia received the full contingent of EPSDT

services, including follow-up treatment (U.S. Government Accountability Office 1995). Children in foster care utilized health care 23% more than all other children with Medicaid in California (Halfon 1992 and Halfon 1995). Specifically, when compared to children in families receiving federal medical aid, twice as many children in foster care utilized medical equipment or specialist services or were hospitalized (Takayama 1994). In the same study, 25% of children in foster care utilized mental health services, compared to 3% of children not in foster care. Higher utilization rates may indicate greater need (Takayama 1994).

Dental Care for Children in Foster Care

Dental caries, also known as tooth decay, is the most common chronic childhood disease. Despite this, a majority (67%) of children in foster care did not utilize dental care (US Department of Health and Human Services 2000, Melbye 2013). There is limited literature on children in foster care and their oral health, but what is available indicates that they have unmet dental care needs and encounter multiple barriers to receiving dental care (Colthirst 2008). According to a study of 14 key informant interviews focused on Medicaid-enrolled children in the foster care system in Washington state, barriers to dental care included scarcity of dentists accepting Medicaid, children moving from foster home to foster home, and lack of resources to the social workers (Melbye 2012). Another study conducted in Iowa found that children in foster care have 1.29 higher odds of utilizing dental services; this may indicate that children in foster care require more dental care than the general population care (Chi 2010).

Heath Care Interventions for Children in Foster Care

In his seminal article, John D. Stoeckle wrote that, "the social worker was often their [the patients'] central source of advice within the hospital's outpatient clinics, a medical care function commonly attributed to the 'family doctor,'" which places social workers in a unique position for delivering health advice to foster families (1966). Social workers work closely with both foster parents and children in foster care, often through home visits. Currently, there is no defined program for home oral health assessment or education for children in foster care. Social workers, in one study, unanimously agreed that they influence whether a child in foster care receives dental care (Melbye 2012).

A potential oral health program is through home visits to foster homes by social workers. Limited research has been conducted in the United States concerning dental home visitation programs and their effectiveness. One recent study set in the US found that CSHCN have 1.93 times higher odds of receiving home visit services than children without special health care needs (Lanier 2015). The same study also found that children with public insurance were significantly more likely to receive home visit services than those with private or no insurance. Children in foster care are typically on public insurance and are CSHCN; it would be reasonable to assume that they would receive home visit services by social workers. One randomized study found that home visits to new mothers involving dietary advice decreased caries prevalence in infants, and another study found a significant increase in dental utilization for children who participated in a home visitation program (Feldens 2007 and Brickhouse 2013).

Objectives

To date, no studies have examined social workers as a potential intervention point to improve the oral health of children in foster care. This study was conducted to begin to fill that gap. The first objective of this study was to determine the oral health experiences of social workers. The second objective was to assess the feasibility of a social worker-driven oral health focused intervention for children in foster care. We hypothesized that a social worker-led home visit intervention would be a feasible strategy to improve the oral health of children in foster care.

Methodology

Study Setting and Participants

Social workers in Washington state were recruited to take part in this cross-sectional qualitative study. We conducted semi-structured key informant interviews with social workers that have experience with children in foster care. Inclusion criteria included being employed as or with a social worker (such as a social worker case assistant) in Washington state, English speaking, and working with at least one child in foster care under the age of six. Nineteen social workers and one social worker case assistant at twelve social services agencies were recruited using a snowballing technique, where participants recommended other potential participants through social or work contacts. Approval was obtained from the University of Washington Institutional Review Board (#49663). Written informed consent was obtained from study participants. Subjects received a $25 gift card as an incentive.

Questionnaire, Interview, and Data Collection

A 20-item questionnaire was administered to collect data on demographic characteristics and oral health experiences (Appendix 1). It was pre-tested with a social worker that works with children in foster care and modified. The questionnaire was administered individually to each social worker, and was followed immediately by an interview in person or over the phone. Questions such as "How often do you typically visit the dentist?" and "Do you currently have any cavities?" were included in the questionnaire. The interview included general questions concerning the subjects' interactions with children in foster care and oral health. The Extended Parallel Process Model (EPPM) was used to develop the interview guide to understand the extent

to which social workers are willing to consider implementing an intervention during home visits to foster homes (Appendix 2). The EPPM suggests "individuals implicitly weigh perceived threat against perceived efficacy in a multiplicative manner in their cognitive appraisal" (Witte 2001). Individuals' perceived threat determines the initiation and level of response, while their perceived efficacy determines the nature of the response (Witte 2001). The model focuses on perceptions of threat (severity and susceptibility) and efficacy (self and response), and how these influence future behavior (Witte 2000). The EPPM has been used to assess antecedents to behavior and for creating interventions in the preventive health field, including parents' decisions on taking their preschool-aged children to preventive dental visits (Murrary-Johnson 2004, Gore 2005, and Askelson 2012).

We examined three domains from EPPM to assess social workers' perceptions of the threat (severity and susceptibility) of dental cavities and efficacy (self and response) of a social worker-driven home based intervention. The first domain focused on the oral health of children in foster care, specifically a social worker's ability to recognize cavities, what causes cavities, and the consequences of untreated cavities. The second domain was dental care access, which focused on children in foster care's ability (or lack thereof) to access adequate dental care, as well as the consequences of not obtaining care. The third domain focused on various aspects of social worker-based intervention, including feasible intervention modalities, potential effectiveness, the social worker's ability to deliver the intervention, and barriers to delivery. Each domain was broken down into specific constructs, with definitions provided in Figure 1.

Data Analysis

Questionnaire answers were tabulated in Stata 13 (*Stata Statistical Software: Release 13*. College Station, TX: StataCorp LP). Interviews were digitally recorded, professionally transcribed, and verified. After the final interview, coding was completed using constant comparison methodology between two researchers. Each interview transcription was hand coded using a deductive coding approach using the domains listed in Appendix 3 in nVivo 10 software (QSR International, Doncaster, Victoria, Australia).

Results

Demographic Characteristics and Oral Health Experiences

A total of 19 social workers and 1 social worker case assistant were interviewed. One participant declined to answer the questionnaire. The mean age was 39.8 years (SD=10.5years) (Table 1). Of the participants who completed the questionnaire, 17 were female and 2 were male. All participants worked in Western Washington with the exception of one who worked in Eastern Washington. Over 60% have worked as a social worker for 5 years or more and 55% have been with their current employer between 1 and 5 years. Only 30% worked in the private sector, while 65% worked in the public sector. A majority of the participants identified as Non-Hispanic White (65%) and 20% identified as Hispanic. Half of the participants did not have children.

Most participants reported that they have either had cavities or fillings (90% and 95% respectively), and 60% reported that they did not currently have cavities (Table 2). The majority (60%) of participants visit the dentist more than once a year with the most recent visit within the previous six months. All participants who completed the survey reported having private dental insurance.

Oral Health of Children in Foster Care

Most participants stated that their self-efficacy to identify a cavity was low, unless the cavities were very severe. One participant stated that recognizing cavities would be difficult because "I do not even know if I would know what to look for except that their teeth are present." Those who said that they would be able to recognize a cavity stated that they would know by the

presence of a “black hole” on the tooth or that they have had their own cavities, so were familiar with their appearance.

Perceived susceptibility was high according to participants, who stated that children in foster care are more likely to have cavities than other children. Only one participant stated that all kids are equally as likely to have cavities and none said that children in foster care were less likely to have cavities. When asked what specifically leads to cavities in foster children, a participant replied that “Bad diet, lack of care, and lack of access to dental care. … Birth parents, no fault to them, but they often come from low income families and have their own mental health [issues] or drug addiction … to think about the kid’s dental [health] is on the lower end of the hierarchy of needs.” Participants overwhelmingly agreed that the diet of child in foster care influenced whether they had cavities or not. Specifically, a diet high in sugar, processed foods, juice, and soda were believed to lead to cavities. One participant stated that this kind of diet was used by biological parents to “win over” their children during visits or when they were returned home and that “if you only get to see your kid once a week, you want to be the fun mom.” Participants attributed preventive dental visits, fluoride treatments, and sealants to helping prevent cavities. More specifically, they also stated that good tooth brushing and oral health education help to prevent cavities in children in foster care. One participant succinctly stressed that preventing cavities depends on “a good diet and consistently taking care of your teeth.”

Participants reported high levels of severity of untreated cavities in children in foster care. Stressing the long term effects of having dental cavities, one participant stated that, “without addressing it, you end up with them turning into adults who do not take care of their teeth and

then become parents who do not take care of their kids' teeth." Participants stated that pain, bone or nerve damage, decay on adjacent teeth, extractions, and infections were the most common sequela of unaddressed cavities. Long term life effects, such as cavities leading to poor health outcomes, mental health issues, and loss of self-esteem, were stated as important consequences of cavities in children in foster care.

Dental Care Access for Children in Foster Care

Before entering foster care, participants stated that children very often come from homes of neglect, including medical, dental, and nutritional. Children were also less likely to access dental care because of lack of insurance and finances, according to participants. Even with dental insurance once they enter foster care, many participants stated that dentists treat children with Medicaid dental insurance differently; one stated that, "I think access is harder [for them]. It is harder to get a dentist appointment and the appointment is farther out, and they spend less time with them. If they do have follow up recommendations, it is harder to get done in a timely way." This participant alluded that dentists are not accommodating to the special needs of children in foster care.

Perceived severity of untreated dental cavities in children in foster care was high and leads to numerous consequences. These include pain, decreased oral health, systemic health, and social health. One participant stated that, "dental health affects your whole body." Participants believed that the cavities lead to poor life course effects and increased numbers of emergency department visits due to systemic infections from untreated dental cavities. One stated that "I think that [young children in foster care] with dental problems would probably be worse because it is

starting the foundation off all wrong… it is setting them off to have more [dental] issues later in their life."

Self-efficacy of dental care access was reported high by social workers, who stated that they would be confident in their ability to get a child on their case load in foster care to a dentist in an emergency situation, though it may be difficult and time consuming. Participants offered many resources, such as calling the local Medicaid office for a list of dental providers, utilizing previous dental records to return to the same dentist (as long as the child has dental records), talking with co-workers, having a connection to a local dentist, and using their own personal experiences and contacts. One participant started that she would "find a local person and ask them for references. Typically, if a dentist is not able to help that specific case, they know someone who can." One participant stated that she would, "Google stuff, ask around, call foster care Medical [hotline], or ask coworkers where they send their kids in the area." One participant stated that living in a rural community makes accessing dental care more difficult because there are not enough providers to meet the demand. Others mentioned that finding a dentist who accepts Medicaid insurance is challenging.

While some children in foster care have dental records, most participants stated their self-efficacy was low; obtaining information about the dental history of a child in foster care would be difficult. The most commonly stated reason was that children "bouncing" from foster home to foster home with no accompanying records. One participant agreed with this, saying that, "The placement changes make it hard to … know what care they had at their last placement and what they still need to do." Children entering foster care for the first time were often harder to gather

information about. Participants stated that foster parents who kept detailed records made gathering dental or medical history easier, but that was not usually the case.

Participants stated that many children do not have dental care coverage before entering foster care or when they are returned to their biological parents. One participant stated that, "being in foster care can be a good opportunity to address [cavities] where they otherwise may not be … addressed for a long time [outside of foster care]." Participants also stated that once they enter foster care, they are eligible for Medicaid dental insurance. Though participants acknowledged that all children in foster care are eligible for Medicaid dental insurance, the response efficacy was reported as low with almost all of the study participants agreeing that the children would be unlikely to utilize regular dental care. Factors that influence the likelihood of utilizing dental care were reported as competing priorities for the children and family, "bouncing" from foster home to foster home, inability to locate dentists who accept Medicaid dental insurance, and the child's excessive dental fear or disruptive behaviors at the dental office.

Social Worker-Driven Oral Health Intervention

Overall, all participants agreed that perceived severity of dental disease in children in foster care were great enough that developing and delivering an oral health intervention is imperative for children in foster care. One participant ended the interview by saying "I think foster parents sometimes struggle with the facts of what dental neglect looks like. I think [an intervention] could be really helpful and it would give them a good resource."

Most of the participants reported high self-efficacy and that delivering an intervention would be easy to implement. However, they stressed that certain conditions would help to improve their

ability to deliver the intervention, such as the child living in a stable foster home, the social worker having training beforehand ideally from or organized by a dentist, and keeping the intervention brief (less than ten minutes) and not demanding for the social worker. Participants also stressed the difference between public and private sector social workers' ability to deliver: "I think that we [private social workers] could do it, but I wonder about state workers because their caseloads are a lot higher and are more over worked than private social workers." They suggested that it would be easier to implement with private social workers before public social workers

One barrier to implementing the intervention was creating an intervention that increased social workers' workload. Participants with high caseloads stated they it would be more difficult to deliver the intervention, stating that they would not have enough time. A common theme throughout most of the interviews was that the intervention must be brief (less than ten minutes) and concise, saying that, "the longer [the intervention] is, the harder it would be to do during a home visit." Participants also stressed that oral health is often a low priority for both social workers and families and would act as a barrier to implementing the intervention. One participant focused on the business of home visits and said that "I feel like home visits are a burden. And so, because they not only meet with the social workers, but also the state social workers, and sometimes other providers. … The time that I do spend [in the home], I try to make it very specific and on what is important."

The participants were asked to describe their ideal oral health intervention. Overall, the participants stated that social workers would be the optimal personnel to deliver oral health

education. One participant stated that, "the social worker … is there with the foster parents and the children until they either go back to birth families, are adopted by the foster parents, or age out of the system. Your social worker is your most stable entity." However, many participants suggested numerous other professions as possible avenues, such as parent coaches who work with biological parents, Child Health and Education Trackers (CHET) screeners (who complete medical and health intake for new children in foster care), and volunteer child advocates who represent the children's best interest (though it was stated that there is currently a shortage in Washington State).

Participants generally agreed that the best time to start any intervention would be when the children are young. Delivering the intervention to older children, such as adolescents, presents different barriers than younger children, such as difficulty changing long standing habits and the adolescents' lack of buy-in. One participant stressed that "if you start when they are ten, you cannot have an automatic change. You have to start really early; it's critical. Teaching a twelve year old how to brush their teeth … they are probably not going to absorb it or think it is important, unless they are in a great deal of pain."

Most participants believed that the intervention would be best delivered during home visits, including the initial placement, and during foster parent training, in a continuing education class, which is a requirement of being a foster parent. One participant stated that making oral health education part of Caregiver Core Training (CCT) would be beneficial. CCT is a collaboration with the state of Washington and a private not-for-profit that educates and certifies foster parents

in Western Washington. That same participant said that a separate class would be less acceptable for the foster parents due to the added time commitment.

Participants' response efficacy was high, with participants reporting numerous, novel ideas of delivering oral health education to foster families. They generally agreed that having an oral health package for children in foster care would be an effective intervention. They reported that having toothbrushes, floss, toothpaste, and a book on oral health would be helpful to children in foster care. When asked to clarify why a participant thought a care package and book for the children would be effective, she responded, "They are really tangible. I think people would use the package. … You would be surprised how may foster homes are not prepared with the toothbrush and other items for the kids." Participants stated that having training and a script for oral health advice would be beneficial for incorporating the intervention during home visits. One participant compared delivering pamphlets about oral health to foster parents and delivering the information herself during home visits:

> I think that a program could be effective if it's incorporated into that time [during home visits] already. But it's not like, 'ok well now you have to do this extra class or here's a pamphlet.' They are not going to read it. I think I feel like the best way would be to make it pretty simple, or build on it over time, so every visit you mention one portion of, something, I don't know, like programs, step programs. You just mention one piece of it each time to build into that, it could be helpful. Something like that doesn't feel like 'ok, I am going to sit down with you for 45 minutes and talk about this.' I think that would not be as effective."

Less than half of the participants stated that delivering pamphlets and training foster parents would be effective interventions. Participants stated that having a continuing education course based on oral health for foster parents could be an effective intervention, since foster parents are required to obtain continuing education credit each year.

Discussion

We interview social workers to learn their oral health experiences and to assess social workers' perceptions of the threat (severity and susceptibility) of dental cavities and efficacy (self and response) of a social worker-driven home based intervention. We found that participant social workers agreed that children in foster care have increased dental disease and increase dental need that has gone untreated. Participants stated that children in foster care encounter barriers to accessing regular dental care. Participants also concluded that a social worker-driven intervention of oral health education was needed to address those barriers and increase the oral health knowledge of foster parents.

Disease

Most participants agreed that children in foster care have untreated cavities that can go unrecognized by both social workers and foster parents. This coincides with a recent AAP statement that over 40% of children entering foster care have significant oral health disease (AAP 2015). Participant social workers understand that children in foster care are at higher risk for cavities, but they are not fully equipped to help prevent the cavities. The increased risk of cavities has been supported by the literature, though there is little existing literatures (Colthirst 2008 and Melbye 2013). Participants were able to identify some risk factors of cavities, such as a diet high in simple sugars and lack of routine dental care, both of which can be used by non-dental providers in assessing caries risk (AAPD 2015).

Dental Access

Most participants agreed that children in foster care are unlikely to access dental care, despite having insurance coverage. Not being able to access dental care was believed to lead to harm to the child, especially pain and decreased general health. The cited barriers to access were children "bouncing" from foster home to foster home with poor record keeping, inability to find a dentist who accepts Medicaid dental insurance, and competing priorities, such as systemic and mental health. These findings coincide with Melbye's 2012 study that found barriers to dental care for children in foster care includes scarcity of dentists accepting Medicaid and children moving from foster home to foster home. Almost every participant would be able to ensure that a dentist saw a child in foster care in a dental emergency if they were made aware of it, which also coincides with the finding that social workers influence whether a child in foster care receives dental care (Melbye 2012). Many participants stated that children in foster care are unlikely to utilize dental care, which is different from the study in Iowa that found that children in foster care have 1.29 higher odds of utilizing dental care (Chi 2010). This inconsistency may be due to a difference of misconceptions between social workers' perspective and substantiated data.

Intervention

To date, no studies have examined social workers as a potential intervention point to improve the oral health of children in foster care through preventive education and measures. Since social workers have the most contact with foster families through home visits, this study support the utilization of social workers as an avenue to provide oral health education to foster parents, while encouraging them to establish a dental home for children in foster care. Participants agreed that an intervention should be directed toward foster parents of young children, to allow the potential for the most effective and longest lasting effect. Participants would be capable of delivering oral

health education to foster parents during home visits if the intervention was less than ten minutes and if they were educated prior to implementing the intervention. A dentist could host a continuing education course for social workers based on oral health. A study in Australia revealed a significant increase in oral health knowledge of midwives after completing online evidence based oral health education program (George 2015). That intervention style could be extrapolated to educate social workers. If resources are scarce, such as in a rural setting or social workers' caseloads are too large, a dentist could help create an online course for social workers to expand its reach.

Clinical, Policy, and Research Significance.

The intervention should deliver oral health practices and preventive measures and suggest what to include in a package for children new to a foster home. This should include toothbrushes, toothpaste, floss, mouth rinse, and a child friendly book detailing oral health practices and outcomes. A flow sheet of talking points at each home visit should be included in the education of the social worker to aid the them on what questions to ask and when. Considering that most public social workers have large caseloads that act as a barrier to implementing an in-depth intervention, the class or online course would be able to give them short and concise methods of delivering information to the families, thus keeping the intervention burden low.

Participants stressed that foster parents would also benefit from having a separate educational session, apart from the home visit intervention. Foster parents are initially certified through a multiday process. In Western Washington, this is called CCT. A dentist could potentially be included in the education process at this time, or a social worker that has received training in oral

health education. Also, a dentist could offer a continuing education course in his or her community for foster parents, several times a year separate from the CCT. An online course could be developed for educating foster parents on oral health practices and preventive measures to decrease the burden for foster parents and increase the number of foster parents educated.

This study helps to fill a gap in the research for children in foster care. It also encourages the creation of a social worker-driven intervention that could be tested in a randomized fashion in vivo. The recommended interventions above could be created and utilized with social workers in small numbers before implementing to a wider audience. This would allow for the ability to adjust as needed. Approaching private social worker agencies would be the most feasible.

This study had a number of limitations. First, the study had a small sample size (n=20) which limits generalizability. Additional studies are needed with a larger number of social workers. Second, most (n=19) of the participants were located in western Washington. Future studies should focus on recruiting social workers from more regions of the state, as well as in other states. Third, the participants may have been biased that oral health is an important matter considering that they agreed to participate in the study.

Conclusions

Based on our study, we conclude:

1. It is generally understood by social workers that children in foster care have increased dental disease and increase dental need that has gone untreated.

2. Social workers would benefit from educational courses, either in person or online, on assessing dental health in order to deliver oral health intervention to foster parents during home visits.
3. Foster parents would benefit from an oral health education course during their regular training or as a continuing education course provided by a social worker or an online education course.

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Figure 1: Domains, constructs, and definitions

Domain	**Definitions**
Dental Access	
Self-efficacy	A social's worker's ability to get dental care for a child in foster care
Perceived Severity	How bad it would be if a foster child isn't/wasn't able to access dental care
Perceived Susceptibility	The likelihood of the child not being able to access care or being able to access care
Response Efficacy	How effective dental care is for foster care children
Information Gathering	How easy or difficult to get info about past dental care use or access
Oral Health	
Self-efficacy	A social worker's ability to recognize a cavity
Perceived Severity	How bad cavities would be for a child in foster care
Perceived Susceptibility	How likely a social worker thinks children in foster care can get dental cavities
Preventive Behaviors	What prevents cavities
Intervention	
Self-efficacy	A social's worker's ability to deliver intervention
Intervention Importance	How important the intervention would be
Intervention Barriers	What barriers to the OH program would social worker's face
Response Efficacy	What social worker think are effective methods of interventions
Optimal Intervention	Who social workers would think are better suited to deliver OH

Personnel	program
Optimal Intervention Age	What would be different for older children, the right age to intervene
Optimal Intervention Time	The best time to deliver intervention and how long should it be, right time to intervene during foster care process
Miscellaneous	
Anecdotal experiences	Interesting stories (good or bad experiences). Subjective.

Table 1: Participant Demographics including age, gender, race, work history, and size of family.

	Mean (SD) (years) [minimum, maximum]	Median (IQR)
Age	39.8 (10.5) [29, 63]	35.5 (33,45)
	Number [minimum, maximum]	Percent (%)
Gender		
Male	2	10 %
Female	17	85 %
Missing	1	5%
Number of youth on caseload	[0,625]	
0-10	5	25%
11-20	4	20%
21-30	5	25%
31+	4	20%
Missing	2	10%
Years as a social worker	[0,39]	
1 or less years	1	5 %
Between 1-5 years	6	30%
Over 5 years	12	60%
Missing	1	5%
Years working with foster children	[2,33]	
1 or less years	0	0 %
Between 1-5 years	4	20 %

Over 5 years	15	75 %
Missing	1	5%
Years as social worker at current employee	[0,23]	
1 or less years	5	25%
Between 1-5 years	11	55%
Over 5 years	3	15%
Missing	1	5%
Years since highest degree	[0,24]	
1 or less years	0	0 %
Between 1-5 years	7	35%
Over 5 years	9	45%
Missing	4	30%
	Number	Percent (%)
Work Sector		
Private	6	30%
Public	13	65%
Missing	1	5%
Race		
Non-Hispanic White	13	65%
Black	1	5%
Hispanic	3	15%
Other	2	10%
Missing	1	5%
Hispanic Origin		
Yes	4	20%
No	15	75 %
Missing	1	5%
Children		

No	10	50%
Yes, biological	6	30%
Yes, adoptive	2	10%
Yes, biological and adoptive	1	5%
Missing	1	5%

Table 2: Participants oral health practices including frequency of dental visits, history of dental cavities and restorations, and type of dental insurance

	Number	Percent (%)
Previous Cavities		
Yes	18	90%
No	1	5%
Missing	1	5%
Previous Fillings		
Yes	19	95%
No	0	0%
Missing	1	5%
Current Cavities		
Yes	1	5%
No	12	60%
I don't know	6	30%
Missing	1	5%
Regular Checkups (at least once a year)		
Yes	2	10%
No	9	45%
Missing	9	45%
Dental Insurance		
Yes	19	95%
No	0	0%
Missing	1	5%
Type of Dental Insurance		
Private	19	95%
Medicaid	0	0 %
Other	0	0 %
Missing	1	5%
Dental Visit Frequency		
More than once a year	12	60%
Once a year	5	25%
Less than every 3 years	2	10%
Missing	1	5%
Last Dental Visit		

In the past six months	12	60%
About a year ago	3	15%
Over a year ago	3	15%
I do not know	1	5%
Missing	1	5%

Appendix 1: Questionnaire

Section 1: Experience with Foster Care Children:

These questions are about your experiences working with foster children, which is important because we are interested in understanding how we might improve dental service provision to this population. Please write your answers in the spaces provided.

1) How many years have you been a social worker with your current employer?

_____

2) How many years have you been a social worker in total?

_____

3) What is your highest degree and in what year did you earn it?

_____

_____

4) How many years have you worked with children and youth involved in child protective services?

_____

5) How many years have you worked in Washington State?

_____

6) What is your current position and title?

_____

_____

7) How many youth are currently part of your caseload?

_____

Section 2: Oral Health Questions:
These next questions are about your personal background and characteristics, which may help us to understand factors that influence perceptions of dental health care use. Please check the box or write in the spaces provided.

8) Have you ever had a cavity?

□ Yes

□ No

9) Have you ever had a filling or a crown?

□ Yes

□ No

10) Do you currently have any cavities?

□ Yes

□ No

□ I don't know

11) Do you see a dentist regularly for checkups (at least once a year)?

□ Yes

□ No

12) Do you have dental insurance?

□ Yes

□ No

13) If yes, what kind of dental insurance?

□ Private (Delta Dental, Willamette, et c.)

□ Medicaid (Title 19, DSHS, Medical coupons)

□ Other _____

14) How often do you typically visit the dentist?

□ more than once a year

□ once a year

□ every two years

□ every three years

□ less frequently

□ Never

15) When was your last visit to the dentist?

□ In the past six months

□ About a year ago

□ Over a year ago

□ I have never been

□ I do not know

Section 3: Demographic Questions:

These next questions are about your personal background and characteristics, which may help us to understand factors that influence perceptions of dental health care use. Please check the box or write in the spaces provided.

16) What year were you born?

_____

17) What is your gender?

□ Male

□ Female

□ Other (Fill in: _____)

18) Are you of Hispanic origin?

□ Yes

□ No

19) Which of the following best represents your race? Circle all that apply.

□ Non-Hispanic White or Euro-American

□ Black, Afro-Caribbean, or African American

□ Latino or Hispanic American

□ East Asian or Asian American

□ South Asian or Indian American

□ Middle Eastern or Arab American

□ Native American, American Indian, or Alaskan Native

□ Other (Fill in:_____)

20) Do you have any biological or adopted children? Circle all that apply.

□ No

□ Yes, biological

□ Yes, adopted

□ Yes, biological and adopted

Appendix 2: Interview Script

Today is XX/XX/XXXX

This is interview # XX.

Hello, thank you for volunteering today for our study. Children in the foster care system are known to have difficulties accessing dental care and to have poor dental health, such as cavities, gum disease, and other dental problems. We are interested in developing a program to improve the dental health of foster children, particularly for young children under the age 6. We believe social workers could help us to develop the best program possible. Your answers to the following questions will help us develop such a program for foster children under age 6.

To begin, I'd like you to take a moment to reflect on the children on your caseload who are 6 years old or younger.

How many children 6 years old or younger are currently on your caseload?

Thinking about these children, can you tell me what your observations are regarding their general dental health?

Could you tell me about a time when you had a chance to directly observe the dental health of a child in foster care?

Could you tell me about a time when a foster parent mentioned the dental health of their foster child.

Could you tell me about a time when a foster child mentioned his or her own dental health?

Now, I would like you to think about a specific child under age 6 who you have seen recently. Okay, now that you have this child in mind….I have a few questions.

For ease of record keeping, could you give me the initials of that child?

When was your last visit with this child?

During that visit, did you, the caregiver, or the child discuss any issues pertaining to dental health?

How hard or easy would it be to find out when that child last saw a dentist?

Perceived Susceptibility

Lets go back to thinking of children in foster care 6 years old or younger in general.

Based on your experience, what are the main dental problems or dental needs of foster children that you work with?

When you think about foster children, in general, how likely are these children to have cavities (compared to non-foster children)?

When you think about children under age 6, do the youngest children or oldest children have bigger dental problems? Or are their dental problems roughly the same?

What specific factors do you think can lead to cavities in foster children?

Could you tell me about the dental health benefits for children in foster care?

Perceived Severity

Could you describe what a tooth cavity looks like?

What are some bad things that could happen if a foster child got a cavity?

How bad do you think cavities are in baby teeth compared to cavities in adult teeth?

Compared to all the other health issues foster children face, how bad are cavities? Rate on a scale of 1-10, with 1 being most important and 10 being the least important.

Self-efficacy

If you knew a child had problems with their teeth- how confident are you that you could get them into a dentist in a timely manner?

Could you explain how you would do so and what challenges you may face?

How difficult would it be for you to deliver a brief program for foster families aimed at addressing the dental care needs and preventing cavities in foster children? (Brief is defined as less than 10 minutes. Rate on a scale of 1-10, with 1 being the easiest and 10 being the most difficult.)

Why?

Response Efficacy

What do you think is effective at preventing cavities in foster children?

How effective to you think regular dental check-ups are in preventing cavities in foster children?

Do you think there is anyone or instances that regular check ups are not effective for?

How effective do you think oral health advice for foster families would be in preventing cavities in their foster children?

Do you think there is anyone or instances that oral health advice are not effective for?

Intervention-related Questions

Foster kids are often at increased risk for cavities. Simple things like regular dental check-ups and tooth brushing with fluoride toothpaste can do a lot. Social workers are one way to get this message to foster parents and foster children. We would like your opinions on oral health promotion program that we are interested in developing for foster families that would be delivered by social workers during home visits. The focus of the program would be for foster children under the age of 6.

If you could design the program, what would such a program look like to you? I can provide some examples if needed.

- Foster parents attending a class as part of foster parent training.
- Providing the families with pamphlets.
- Watching a video during a worker visit.
- Having a social worker spend time talking with the parents
- Having a children's book parents can read with their foster child about dental health.

- Receiving a tooth care package with the arrival of each child.

In an ideal world, at what point in the foster care process would such a program be implemented?

In general, how likely would social workers be to implement such a program?

How effective do you think such a program would be?

What are some barriers to developing such a program?

Is there anyone besides a social worker, who you think would be better positioned to implement this program?

Would anything that we have talked about be different for older children? How so?

Thank you very much for volunteering for our study today, is there anything else you would like to add?