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Perceived Parental Barriers to Preventive Dental Care Programs for Children

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This is to certify that the doctoral dissertation by

Kim Attanasi

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Walden University
2017

Abstract

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MS, University of Maryland, 2011

BA, City University New York, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

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Abstract

Dental caries is the most prevalent childhood illness and disproportionately affects children from low socioeconomic backgrounds. Dental organizations are collaborating within communities to decrease oral health disparities among children by offering free preventive oral health events. These programs face the problem of low enrollment due to lack of informed parental consent. Also, gaps in the literature indicated the need to examine oral health perceptions and dental-care-seeking practices of culturally diverse low-income parents regarding preventive care for their children. The purpose of this qualitative case study was to explore the reasons why parents are not allowing their children to participate in the aforementioned programs. This inquiry examined how perceived barriers impede parents from seeking free preventive dental care for their children. The transtheoretical model and social cognitive theory were used in this study. Open-ended questions were used to interview 20 purposefully sampled parents regarding perceptions of free preventive dental care programs until saturation. Interviews were audio recorded, and all data were transcribed verbatim, coded, and analyzed thematically. The main themes revealed through this analysis were lack of trust and cultural dissimilarities as potential barriers. Additional themes of money, fear, lack of insurance, transportation, time, and access to care were also confirmed. This study may contribute to positive social change by increasing knowledge that may inform the development of clinical and policy solutions aimed at improving parents' awareness regarding children's oral health, ultimately enabling a reduction in childhood caries and oral health disparities.

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Dedication

I would like to dedicate my dissertation to my father, whom I lost last May. He always made me believe that anything was possible and that everything I did was special. My fondest childhood memories consist of him. I endlessly miss his smile and contagious laugh, and know that he would be so proud of me.

I would also like to include George, my "domestic partner," husband, and left-hand man, who has relentlessly pushed me to finish this project, even when it meant sacrificing time with him and our family. I would like to include my family and friends who encouraged me to continue my education without really knowing what was involved.

Lastly, my employer, Dr. Scott Schaffer, who supported me even when I used all of his ink, paper, and Internet to download my homework and complete my projects in a timely manner. To him, I will always just be the "cleaning lady."

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Chapter 1: Introduction to the Study

Introduction

Dental caries is more prevalent in children than asthma (Centers for Disease Control and Prevention [CDC], 2015). Caries affects children the most between the ages of 5 and 15 years (CDC, 2015). In the United States, 42% of children aged 2 through 11 years old have had dental caries in their primary (baby) teeth. In fact, 21% of children have untreated decay in their permanent teeth (National Institute of Dental and Craniofacial Research [NIDCR], 2014). Dental caries is a preventable disease. A disproportionate number of dental caries can be found in racial/ethnic groups with relatively high rates of poverty such as Hispanic, Mexican, and Black (CDC, 2015). Reducing oral health disparities in children has been on the agenda of the U.S. Department of Health and Human Services (HHS, 2009) through initiatives such as Healthy People 2010 and 2020. Dental universities, colleges, and professional organizations are providing free preventive oral health programs to decrease oral health disparities affecting vulnerable children. However, the problem of low attendance rates is increasing due to lack of parental consent; thus, questions arise as to whether this is an appropriate outlet to reach children who need quality preventive care (Center for health Care Strategies [CHCS], 2015; Glenny, Worthington, Milsom, Rooney, & Tickle, 2013; Spence, White, Adamson, & Matthews, 2013). Because free oral health care for the community is observed as an asset, other possible parental obstacles must prevent children from joining the sealant program. What are the potential obstacles to preventive oral health care besides lack of dental insurance and proximity to dental settings? Is

dental care considered unimportant in the community or by parental caregivers? Inquiry into perceived barriers is of fundamental importance because university initiatives have been experiencing a decline in participants rather than gaining new patients. What, if any, probable obstacles to these programs exist? Decreasing oral health disparities necessitates an understanding of multiple oral health perspectives. The intent of this study was to explore parental perceptions of free preventive dental care programs as seen in caregivers of children between the ages of 5 and 15 years.

Background

According to the U.S. Surgeon General, oral health has a significant impact on the overall health and well-being of individuals and the nation (Devlin, 2011; National Institutes of Health [NIH], 2014). Poor oral health leads to illnesses that affect and restrict individuals' ability to work, learn in school, and function at home, diminishing quality of life (Healthy People 2010; Jackson, 2011; Kierce, Boyd, Rainchuso, Palmer, & Rothman, 2016; NIH, 2014). Progress on oral health diseases has been made due to successful prevention programs (Devlin, 2011). However, not everyone is experiencing improvement (CDC, 2016; Healthy People 2010; Jackson, 2011; NIH, 2014; Kierce et al., 2016). Children of Black, Hispanic, and Mexican descent between the ages of 2 and 15 years and from low-socioeconomic backgrounds suffer from oral health disparities. Dental colleges, universities, and professional organizations develop and promote free preventive dental care programs to increase awareness, access, and oral health literacy for these high-risk children. Unfortunately, parental consent becomes a barrier to these programs when the previously significant barriers of lack of insurance, lack of access to

care, and lack of transportation are removed (NIH, 2014). Chi (2014) raised the concern that a significant number of children still do not receive the required informed consent to attend these programs; without these interventions, high-risk children are exposed to greater levels of dental disease. Horowitz, Kleinman, and Wang (2013) showed that Maryland adults were not well informed about how their children's teeth decay, or how to prevent decay, indicating a need to increase oral health literacy. Dodd, Logan, Brown, Calderon, and Catalanotto (2014); Divaris et al. (2013); and Chi (2013) revealed that the perceived threat from dental disease is low and that caregivers are neglectful of children's oral health needs. However, improving dental professional cultural sensitivity and encouraging parental trust with dental professionals is lacking, as is bolstering and supporting parental/caregiver care that is integral to improving children's oral health (Divaris et al., 2014; Kierce et al., 2016). In fact, research indicated cultural dissimilarity and sensitivity were missing in private practices and public health clinics (Wallace & MacEntee, 2012). Researchers have suggested that further qualitative studies need to be carried out to examine the emotions and attitudes of parents toward their children attending free preventive dental care programs (Chi, 2013; Divaris et al., 2013; Dodd et al., 2014). Exploring perceived parental barriers to preventive oral health programs for children may enlighten dental colleges, universities, and professional programs concerning the challenges of acceptance and low attendance of high-risk children in relation to these programs. Understanding parental concerns and barriers to consent may

allow for colleges, universities, and professional organizations to alter preventive oral health care programs to increase acceptance.

Problem Statement

Dental colleges, universities, and professional organizations continue to offer children of at-risk neighborhoods convenient opportunities to take part in free oral health disease prevention programs, which include exams, dental sealants, and fluoride treatments (CDC, 2014; Devine, 2011; Devlin & Henshaw, 2011; Olmsted, Rublee, Zurkawski & Kleber, 2013). These free preventive initiatives are designed to aid in the reduction of oral health disparities in children. According to health disparities research, improving access to care automatically leads to an uptake of preventive care (Chi, 2014). However, a significant number of children still do not receive the required informed consent to attend these programs and are therefore exposed to greater levels of dental disease (Chi, 2014). There is a need to examine the emotions and attitudes of parents toward their children attending these events (Divaris et al., 2014; Dodd et al., 2014). Comprehending the perspectives of parents on their children's oral health may help dental disease prevention programs to be successful in the community (Beck et al., 2014; Chi, 2013; Devlin & Henshaw, 2011; Divaris et al., 2014; Dodd et al., 2014). It is essential for investigators to expose the intricate reasons why parents do not comprehend the importance of preventing dental disease in terms of their children's total health (Dodd et al., 2014). Uncovering parental awareness of obstructions could allow dental hygienists, universities, and dental clinics to organize more successful free preventive care dental programs. This research has implemented qualitative data based on interviews

with parents regarding their feelings toward taking their children to a free oral health disease prevention event.

The aim of this research was to assist in the reduction of oral health disparities among children. Documentation proves that children of families below the poverty level are at greater risk than other children of developing dental caries (Devlin & Henshaw, 2011; Guarnizo-Herrano & Wehby, 2012). Evidence affirms that there has been a need for a qualitative study to examine the emotions and attitudes of parents toward their children participating in these programs (Chi, 2013; Divaris et al., 2013; Dodd et al., 2014). In a related study on adolescents and dental care, Dodd et al. (2014) found that perceived threat from dental disease was low. In fact, participants perceived regular brushing and flossing as superseding the need for preventive care (Chi, 2014; Dodd et al., 2014). Additionally, some participants believed that esthetic concerns were often a reason to seek dental care. However, many participants articulated frustrations related to lack of access to dental care, including those linked to finances, transportation, fear, issues with Medicaid coverage, and parental responsibility (Wallace & MacEntee, 2011). Dodd et al. (2014) reported that parents described going to the dentist as "something their family never did" (p. 807). The purpose of this inquiry was to explore parental perceptions of barriers to dental care by questioning parents who perceived difficulties in relation to accompanying their children to free preventive dental care programs. Documentation has revealed that children of low-income families are at greater risk than other children of developing dental caries (Devlin & Henshaw, 2011; Guarnizo-Herrano & Wehby, 2012). For instance, Muller-Bolla, Lupi-Pegurier, Bardakjian, and Velly (2013) suggested that

sealants should be deposited on the permanent molars of children who are susceptible to caries. However, sealants are underused, particularly among low-income families and families from racial/ethnic minority groups (Ahovuo-Saloranta, Forss, Hiiri, Nordblad, & Mäkelä, 2016; American Academy of Pediatrics, 2016). This research project was conducted in an effort to fill gaps in literature indicating a need for further qualitative studies exploring the emotions and attitudes of parents toward their children attending these free preventive dental care programs (Chi, 2013; Divaris et al., 2013; Dodd et al., 2014; Guarnizo-Herrano & Wehby, 2012).

Purpose of the Study

In this research project, a qualitative case study design was used to explore oral health perceptions and dental care behaviors of parents of children aged 5-15 years in underperforming Title I New York City elementary schools. Caries affects children's permanent teeth the most between the ages of 5 and 15 years (CDC, 2015). This approach may have distinguished potential barriers to free preventive dental care for children. Comprehending the numerous oral health perspectives of parents and their children could allow for free preventive dental care programs to be successful in the community. Assimilating myself in the community and engaging parents with open-ended questions and multiple conversations provided knowledge of the sensitivity surrounding oral care behaviors. The ultimate goal was to find out whether these programs should endure with a low success rate or attempt to determine and diminish perceived parental barriers to care. Understanding perceived parental barriers could aid in increasing rates of informed consent for the use of these programs and, consequently,

increases in the number of high-risk children receiving preventive dental care. Understanding parental refusal of preventive care could help in identifying the social, economic, and policy implications of oral health decision making (Chi, 2014).

Research Questions

The primary research question for this qualitative inquiry was the following: What perceived barriers would prevent parents from having their children attend a free preventive dental care program? I also explored the following subquestions:

1. Is lack of trust an issue for parents?
2. Are cultural issues perceived as a barrier?
3. How can free preventive dental care programs more efficiently reach children?
4. What are the real-life perceptions of these programs by parents?
5. What other life events prevent children from attending?
6. What is parents' perception of preventive dental care?
7. How was parents' dental care addressed when they were children?

With a qualitative case study, the researcher can modify questioning as distinctive themes materialize during the data collection process.

Theoretical Framework

The identification of an appropriate theory or theories for the framework of a study originates with establishing the problem, goal, and types of participants (NIH, 2015). This project incorporated Prochaska and DiClemente's (1983) trans theoretical model (TTM) of behavior change and Bandura's (1986) social cognitive theory (SCT) to

facilitate an understanding of how parents from low socioeconomic communities' access preventive dental care services for their children.

The social determinants of health and health behavior are based upon understanding explanatory theories and change theories such as TTM and SCT (NIH, 2015). Many social, cultural, and economic factors contribute to the development, maintenance, and change of health behavior patterns (NIH, 2015). Public health and health promotions are effective if they embrace an *ecological perspective* and include upstream approaches (NIH, 2015).

The use of the TTM allowed me to understand how parents perceive their children's oral health care needs. Prochaska and Velicer (1997) suggested that at-risk populations are 40% in precontemplation or have no intention of taking their child to the dentist, 40% in contemplation, and 20% in preparation. Identifying stages of behavior allowed me to recognize necessary future planning toward moving parents into different stages. Parental self-efficacy toward oral health care and parental decision making were integral to the application of the TTM in this study. Specific procedures can be designed to reduce resistance and facilitate progress toward parents escorting their children to preventive oral health programs.

Additionally, SCT helped me to explain how parents observe, imitate, and learn health care behaviors based upon social surroundings in the neighborhood. SCT helped to explain how interaction with the environment and self affects parental behaviors.

Both the TTM and SCT helped me to consider the long-term changes in health behavior that comprise diverse actions and adaptations over time (NIH, 2015). For

example, certain parents or children are not ready to focus on behavioral changes, whereas others are in the process of changing their oral health behaviors. The TTM indicates that people are at different stages of readiness to adopt healthful behaviors (NIH, 2015). The concept of readiness to change, including recognition of stages of change, has been used in health behavior research for years. The TTM has been helpful in explaining and predicting changes for a variety of behaviors, including tooth brushing and other oral health care habits (NIH, 2015). Using interviews and observations based upon the TTM and SCT, I attempted to highlight oral health behavior patterns of parents and how they affect use of preventive oral health care for children.

Nature of the Study

This project was a qualitative study exploring perceptions and potential barriers in relation to why parents or caregivers do not escort their children to free preventive oral health programs. I used a case study design because this qualitative approach involved investigating a real-life bounded system (Creswell, 2013). A case study is an in-depth look at a single person or group of people and its relationship to a phenomenon (Creswell, 2013). This study included 20 interviews with parents regarding perceptions of free preventive dental care programs and perceived parental barriers. It was designed around examining apprehension and possible obstacles pertaining to why parents do not guide their children to dental disease prevention programs. Case study designs focus on a single individual, organization, event, or program (Rudestam & Newton, 2015). It was a case that has a specific time and place. The study progressed over time with in-depth, open-ended, detailed data collection involving observations and interviews. The

interviews were audio recorded, and all documents and reports were analyzed (Creswell, 2013). The purpose of the research was to illuminate and apprehend this unique problem of low preventive dental care program attendance and address concerns of perceived parental barriers (Creswell, 2013).

The data collection method involved individual interviews and observations, of parents regarding perceptions of dental care and perceived barriers to free preventive dental care programs (Laureate, 2015). Interviews consisted of semi structured, open-ended questions situated around the primary research question. The interviews were audio recorded, and observation and journaling were conducted during interviews; all information gathered was transcribed verbatim later (Rudestam & Newton, 2015). After initial observation, interviews were conducted face to face.

I began observations by collecting field notes, first by observing as an outsider, and then by moving into the school setting and observing as an insider (Creswell, 2013). Observation is an integral part of qualitative research (Creswell, 2013). Observation started with parents or caregivers of children who had specific demographic and ethnic backgrounds. Observation notes highlighted the setting, neighborhood, actions, attitudes, and behaviors of parents toward preventive oral health programs. Per the University of California (2015), if researchers want to find out what people do, they should observe them. The strength of observation is the richness of description (University of California, 2015). Observation was fundamental in discerning the natural setting and was sensitive to the participants' perspective (Saldana, 2016). Observation makes it possible to cultivate

an in-depth and rich understanding of people, settings, phenomena, and the behavior of people in a setting (Saldana, 2016).

Documents reviewed for this study included journals I kept during the study, documents related to the interview setting and neighborhood, and messages sent during text or email correspondence with the participants. Finally, I developed audiovisual materials by recording conversations and all interviews.

Secondary Data Types and Sources of Information

My plan was to gather extensive data that would provide rich informational resources (Creswell, 2013). I used notes jotted down during interviews and observations, as well as social media, texts, emails, and audiovisual materials (Rudestam & Newton, 2015). Additional documents consisted of journals kept during the study and information on the program setting and neighborhood.

Definitions

For the purpose of this study, the following definitions were used:

Dental health professionals: A team of professionals who provide oral health care. The team is composed of a dentist, a dental therapist, a dental hygienist, and a dental assistant who work together to meet the many and varied dental and orally related needs of the dental patient (Nunn, 2015).

Dental sealants: Thin plastic resin coatings applied to the tiny grooves on the chewing surfaces of the back teeth (molars) to prevent tooth decay by forming a protective physical barrier (CDC, 2016).

Healthy People 2020: The nation's framework for improved health for everyone. The goals of Healthy People 2020 are to increase quality and years of healthy life and eliminate health disparities (CDC, 2016)

Oral health disparities: Exist for many racial and ethnic groups, as well as groups defined by socioeconomic status, gender, age, and geographic location. Economic factors in poor oral health include access to care and an individual's ability to maintain dental insurance (CDC, 2016).

Oral heath literacy: The degree to which individuals have the capacity to obtain, process, and understand basic oral health information and services needed to make appropriate health decisions (Healthy People, 2010).

School-based dental sealant programs: Provide sealants to children from low-income neighborhoods and certain racial and ethnic groups at the highest risk for tooth decay, who may not receive routine dental care (CDC, 2016).

Socioeconomic status: Generally seen as the social standing or class of an individual or group. It is considered as a fusion of education, income, and occupation (APA, 2016).

Untreated dental caries: Tooth decay (dental cavities) that has not received necessary treatment (CDC, 2016).

Assumptions

The following assumptions were made concerning the implementation of this study:

1. The parents had the opportunity to participate in a free preventive oral health care program for their children.
2. The parent participants for the study were cooperative, honest, and able to follow instructions.
3. The use of purposive selection produced a sample of parents with variations in dental literacy and levels of knowledge regarding oral health diseases in their children. This purposive sample of parent participants was indicative of meeting inclusion criteria such as low socioeconomic status and specific ethnic backgrounds.
4. The data collected were a true representation of parent participants' feelings and attitudes toward free preventive dental programs for their children.
5. The sample of parent participants produced data saturation when I discerned that it was no longer possible to obtain new information.

Scope and Delimitations

The study conducted for this dissertation was delimited to 15-30 purposively selected parents of children who had been denied access to free preventive oral health programs. Below is a list of requirements that was necessary to meet the objectives of this project

1. The data were collected from underperforming Title I New York City elementary schools at a public area such as a health fair, that had a private place or section, chosen by parent participants based on convenience.

2. Study participants had a child or children aged 5-15 years attending the underperforming Title I New York City elementary school that served as the source for recruiting parents. The age of the children was important because first and second molars erupt at this time, allowing for protective, preventive dental sealant placement (American Dental Association [ADA], 2006). Additionally, children of this age have developed adequate motor skills for proper tooth brushing education techniques (Das & Singhal, 2009).
3. The participants lived in the low-socioeconomic neighborhood of the school district. The selected parents were of Black, Hispanic, or Mexican descent because oral health disparities continue to affect these racial and ethnic groups.
4. The parent participants spoke and read English fluently.

Limitations

The results of this qualitative study were affected by the following factors beyond my control as the researcher:

1. Inaccurate reporting of perceived barriers by parents on the open-ended questionnaire.
2. Incorrect personal information on the sociodemographic questionnaire or consent form.
3. The arousal of response bias among the parents in the sample, such as the tendency to agree with positive statements, answer with limited responses, or

respond in ways that are thought to be socially desirable or culturally appropriate.

4. The limitation of researcher bias was controlled by triangulation of data and by one other researcher reviewing and analyzing the data.

Significance

The intent of this study was to explore awareness of emotions and attitudes toward free preventive oral health care programs in parents of children between the ages of 5 and 15 years. Information from this study could enable universities, colleges, and professional organizations to adjust program planning to increase the number of children benefiting from preventive dental services. The only successful way to increase informed consent and child attendance is to understand parental concerns (Chi, 2013; Divaris et al., 2013; Dodd et al., 2014). Evidence suggests that school-based dental sealant programs have been successful in reducing oral health disparities, reducing dental caries, and increasing access to care (Devlin & Henshaw, 2011). Examination of the literature indicates a definite need for designing and implementing more community-based sealant programs (Chi, 2013; Devlin & Henshaw, 2011; Divaris et al., 2013; Dodd et al., 2014). This study may help the nation achieve its goal of a 50% reduction in dental caries in children by 2020. However, if perceived parental obstacles are indicated as a deterrent to the use of dental programs, school-based initiatives, or professional organizations, perhaps identifying and eliminating them could encourage policy change. For instance, trust was a common social and behavioral issue that emerged as a theme; perhaps tailoring strategies such as alternative preventive treatment, alternating time schedules to

accommodate parents that work, web-based educational programs, participatory communication, and motivational interviewing could be pursued to improve a community's position on positive preventive oral health care (Chi, 2014). Additionally, parental barriers were seen as complex; a multidisciplinary approach may be necessary that includes elements such as expanded partnerships with pediatricians and nurses (Chi, 2014; Fontana & Wolf, 2011). This study could promote social change by indicating ways to positively modify the oral health behaviors of children by teaching them how to take care of their oral health, such as twice-daily brushing with fluoride toothpaste. This study was an attempt to highlight the social impact of oral health problems, such as more than 51 million lost work and school hours (Devlin & Henshaw, 2011), to enable the community to become stronger by increasing acceptance of quality preventive dental care programs for children.

Summary

Currently, 1 in 5 children aged 5 to 11 years has untreated dental caries (CDC, 2016). The percentage of untreated caries in children from low-income families is twice as high as rates for children from high-income homes (CDC, 2016). Numerous studies show that dental sealants reduce caries in permanent teeth by 81% for 2 years after they are placed and can continue to be effective 4 years after placement (Ahovuo-Saloranta et al., 2013). However, perceived parental barriers are preventing high-risk children from receiving preventive dental care. This qualitative case study was important to explore and understand the unique perspectives on parental barriers to free preventive dental care programs for children. Understanding perceived parental barriers to these programs may

afford universities, colleges, and professional organizations the insight necessary to reevaluate how to elicit more parental consent for at-risk children to use these programs. A higher attendance rate would mean increases in preventive oral health education, literacy, and dental sealant placement, ultimately enabling reduction in childhood caries and oral health disparities.

In the following chapter, literature that influenced the current study is introduced. The following chapter also presents an exhaustive discussion of literature that has made a contribution to furthering the investigation of perceived parental barriers to free preventive dental care programs for children. It provides a synthesis of current research findings and justifies why this study was necessary.

Chapter 2: Literature Review

Introduction

In this chapter, an overview of theories and concepts surrounding perceived parental barriers to free preventive oral health programs is presented. I compare and contrast elements such as low-socioeconomic status that affect children of various ethnic descents whose caregivers appear not to provide parental consent for preventive dental care for their children (Glenny et al., 2013; Spence et al., 2014). I explored past and current literature on Prochaska and DiClemente's (1983) trans theoretical model (TTM) of behavior change and Bandura's (1986) social cognitive theory (SCT), as well as the current understanding of how perceived barriers to preventive dental care for low-income parents relate to children's oral health. Understanding parental barriers to children's preventive oral health programs may help to increase access through signed consent and ultimately reduction of caries in high-risk low-socioeconomic-status children. Additionally, dental universities, colleges, and dental organizations may implement programs that support and acknowledge parental concerns to increase attendance and child participation.

In this chapter, I present a detailed literature review on the lack of knowledge surrounding perceived parental concerns regarding free preventive oral health programs. The first section includes specific search terms applied to establish relevant articles. Next, I describe the theoretical and conceptual frameworks I applied to understand how multidimensional parental perceptions, attitudes, and beliefs relate to lack of child attendance at oral health interventions. Finally, I present an analysis of literature that

pertains to potential parental barriers to preventive oral health care for children and establishes the need for this study.

Literature Search Strategy

To obtain credible and current evidence to support this research study, a review of the literature from multiple sources was conducted. Search engines used included Medline with full text (EBSCO), PsycINFO (Ovid), ERIC, PubMed, and Google Scholar. The Walden University Library and New York University College of Dentistry Library were used to find full-text articles. The main search terms, *oral health disparities* and *oral health*, were used in combination with terms such as *children, low socioeconomic status, attitudes, dental anxiety, self-efficacy, self-care behaviors, barriers to care, prevention, interventions,* and *school-based sealant programs*. For example, iterative conjugations of *attitudes, dental anxiety, self-efficacy,* and *self-care behaviors* were searched in PsycINFO and ERIC, and *children, low socioeconomic status, barriers to care, intervention*, and *school based sealant programs* were searched in Medline with full text (EBSCO), PubMed, and Google Scholar. While reviewing each article, I scrutinized the reference list for pertinent additions to the literature review. I also engaged the Internet search engine Google Chrome to locate and access material on relevant topics, organizations, and governmental statistics. The majority of published articles used in my review ranged from 2013 to the present. However, one seminal article from 2005 was used.

Theoretical Foundation

No single theory or conceptual model dictates health behavior research or practice (Vernon & Howard, 2015). In fact, health behavior theories tend to evolve over time (Vernon & Howard, 2015). In dentistry, some of the most popular theories in oral health revolve around variations of self-efficacy (Jones et al., 2014; Vernon & Howard, 2015; Zhou et al., 2015). *Self-efficacy* is the belief that changes in behavior will result in a positive outcome (Jones et al., 2014). Additionally, if the severity of the perceived threat is high and the behavior change is manageable, people tend to adopt the modified behavior (Jamieson et al., 2014).

This project incorporated Prochaska and DiClemente's (1983) TTM of behavioral change as well as Bandura's (1986) SCT to enable understanding of a community's attitudes, feelings, and perceptions on accessing quality preventive dental care for children.

Traditionally, oral health has been influenced by measures such as the presence and severity of dental caries and periodontal disease (Vernon & Howard, 2015). However, parents are often unaware of dental caries in their children's teeth or how to prevent it (Horowitz et al., 2013). TTM suggests that individuals can fluctuate through six stages of behavior change before termination of a negative behavior (Jamieson et al., 2014). Behavior and attitudes associated with each level become apparent as individuals weigh the pros and cons of change (Jamieson et al., 2014). These stages of change are often noticeable, allowing for health care workers to successfully move them on toward the next level (Jamieson et al., 2014). In a study by Jamieson et al. (2014) on a vulnerable

population of pregnant non-Aboriginal women, pre contemplative and contemplative stage of change constructs were both associated with poor self-rated oral health and oral health impairment. This evidence suggests that poor self-rated oral health is related to both non ideal dental visiting patterns and higher levels of dental disease experience (Jamieson, 2014). Incorporating TTM into psychosocial interventions might help to improve oral health outcomes (Jamieson, 2015).

However, oral health behavior change does not happen as the result of one single event or intervention (Horowitz et al., 2013; Wade et al., 2011), nor does education alone provide enough information to alter parental perceptions of prevention programs (Horowitz et al., 2013; Miltiades, 2013). Researchers have shown that ethnic/racial differences persist in dental-service usage patterns and oral health status, even after controlling for traditional socioeconomic determinants (Miltiades, 2013).

Much like TTM, SCT constructs include self-efficacy (Jones et al., 2014). However, SCT also includes other constructs such as knowledge, fatalistic beliefs, and observational learning (Jones et al., 2014). SCT is a comprehensive approach to understanding human behavior, motivation, affect, and thought processes (Jones et al., 2014). SCT suggests that self-efficacy can be attained by multiple methods (Jones et al., 2014). These methods include experiencing success, vicarious learning, and verbal persuasion (University of Twente, 2016). Evaluating behavior change depends on the fluctuating factors of environment, people, and behavior (University of Twente, 2016).

TTM and SCT are two models of behavior change that enable a unique understanding of a community's attitudes, feelings, and perceptions on accessing quality

preventive dental care for children. These models offer this through qualitative exploration of participant parents, as attitudes and oral health behaviors can be assessed and modified. The research question of what perceived barriers would prevent parents from having their children attend a free preventive dental care program was addressed with the TTM and SCT, including the concepts of self-efficacy and learning through others (Bandura, 1986; Prochaska & DiClemente, 1983). In a similar study by Dodd et al. (2014), adolescents' perception of oral health needs was identified as low (no risk) based upon their beliefs that brushing eliminated oral disease. The belief that brushing eliminates disease can be attributed to a learned parental or cultural ideal, which would best be explored by the TTM and SCT.

Conceptual Construct

Cultural beliefs can have a negative influence on prevention-seeking oral health care (Miltiades, 2013). For instance, in Black, Hispanic, and Mexican cultures, many people rely on social networks such as family, friends, church, and neighbors for health information (CDC, 2015). In a study by Miltiades (2013), false beliefs concerning preventive oral health care were highlighted, such as the belief that the use of baking soda prevents dental caries. Miltiades (2013) suggested that future research should further expand upon cultural beliefs and the impact of early childhood influences on later life decisions regarding accessing dental care and oral health. In this study, participants did not receive parental oral hygiene instruction; Miltiades suggested that it is reasonable to posit that participants' parents did not emphasize oral hygiene when raising their children. The current research can benefit from this by exploring additional ethnicities

and cultural beliefs of care-seeking behavior through similar questioning. However, differences were on how they perceive preventive programs for their children as opposed to themselves. In a seminal study by Kelly et al. (2005), parents who did not take their children for preventive oral care were not aware of the consequences of poor oral health. Kelly et al. (2005), suggested that further investigation was necessary to explore cultural factors in order to enable effective community-based interventions. Askelson et al. (2015) suggested that there is limited evidence-based knowledge regarding how parental influence affects preventive dental-care-seeking behavior for children. The current study was an attempt to explore this phenomenon.

Literature Review

Low Socioeconomic Status

Beginning this overview with an understanding of dental caries is important. Dental caries is the most prevalent childhood disease (CDC, 2015). It affects more children than asthma (CDC, 2015). In fact, according to a report from the Surgeon General (2000), childhood caries is 5 times more common than asthma, 4 times more common than early childhood obesity, and 20 times more common than diabetes (American Academy of Pediatrics [AAP], n.d.; Ezer, Swoboda, & Farkouh, 2010; National Children's Oral Health Foundation [NCOHF]; 2016; NIDCR, 2000). In the United States alone, 60% of children will have had caries at some point (AAP, 2013; Ezer, Swoboda, & Farkouh, 2010). Dental caries is preventable. Dental caries disproportionality affects children from low socioeconomic backgrounds (AAP, n.d.a.; CDC, 2015; Ezer, Swoboda, & Farkouh, 2010; NIDCR, 2000; NCOHF; 2016). Children

who suffer from dental pain miss more than 51 million school hours due to oral diseases (Devlin, 2011; Jackson et al., 2011). Numerous studies have indicated that populations that reside in low socioeconomic neighborhoods are at increased risk of dental disease (Beck et al., 2014; CDC, 2015; Guarnizo-Herreno & Wheby, 2012; Horowitz et al., 2013). Further, studies have indicated that parents from low socioeconomic backgrounds have less education, less access to oral health services, and lower dental health literacy than their middle-class counterparts (Dodd et al., 2014; Rahbari, 2015). Parental education can be associated with the ability to identify oral health problems, as well as access to care (Guarnizo-Herreno & Wehby, 2012). Parents in these communities also have intermittent dental insurance due to employment history (Wallace & MacEntee, 2012). However, in a contrasting study, Chi et al. (2013) indicated that most low-income children are covered by public insurance such as Medicaid or the Children's Health Insurance Program (CHIP) and that lack of dental insurance should not be considered a barrier to preventive oral health care. Children from low socioeconomic neighborhoods are 3 times more likely to have untreated dental caries than children living above the federal poverty line (Devlin & Henshaw, 2011). Neighborhood characteristics that have been suggested to influence oral health include safety, social networking, information about dental services, and number of dental providers (Guarnizo-Herreno & Wehby, 2012; Valente, 2015).

Free Preventive Dental Care Programs

Understanding the services provided by free preventive dental care programs will enable a better understanding of how these programs attempt to increase access to care

and decrease oral health disparities in low-income neighborhoods. A preventive dental care program always provides a comprehensive oral examination (Ahovuo-Saloranta., 2013; Ahovuo-Saloranta et al., 2016; Beck et al., 2015; CDC, 2015; Children's Dental Health Project [CDHP], 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). An oral examination enables health care providers, specifically dentists, to visualize or clinically see dental diseases. Dental disease may take various forms, such as a carious lesion in a tooth; a soft-tissue lesion on the lips, buccal mucosa (cheeks), tongue, throat, or gingiva (gums); a missing tooth or filling; a misaligned bite; or recurrent caries.

If a child has caries or red, inflamed gingiva (gingivitis), the child can be referred to a local dentist for treatment, such as a restoration (filling) or cleaning (child prophylaxis). Some programs offer children a fluoride treatment in the form of a varnish (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). *Fluoride varnish* is medicine that protects the outer layer of the tooth (enamel) from the effects of bacterial invasion (caries or decay; CDC, 2015). Fluoride varnish is an effective way to prevent dental caries (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Fluoride varnish gets painted on all teeth surfaces, leaving a protective sticky film on the teeth, and it acts like a vitamin that makes tooth enamel stronger (Ahovuo‐Saloranta et al.,

2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010).

Programs that provide fluoride varnish also provide children with oral hygiene education. Oral hygiene education teaches children how to take care of their teeth, such as proper brushing techniques (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Dye et al., 2015; Devlin & Henshaw, 2011; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Proper brushing twice daily reduces the incidence of dental diseases (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Dye et al., 2015; Devlin & Henshaw, 2011; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010).

Additionally, some programs perform cleanings (child prophylaxis) and apply protective preventive dental sealants on permanent molars (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Dye et al., 2015; Devlin & Henshaw, 2011; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Dental sealants are a protective plastic that covers the biting surfaces of permanent molars and prevents bacteria from residing in the pits and fissures (grooves) of the teeth, sealing out decay (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Dye et al., 2015; Devlin & Henshaw, 2011; Northridge et al., 2015; Olmstead et al.,

2013; Siegal & Detty, 2010). Dental sealants have been proven to be a cost-effective way to reduce and prevent dental caries in children (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta, 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Dye et al., 2015; Devlin & Henshaw, 2011; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010).

Often, the amount of preventive care depends on the facility. Mobile dental units, universities, colleges, professional organizations, and schools provide all of the aforementioned preventive services for children. Churches and community programs may only offer dental examinations, referrals to local dentists, fluoride treatments, and oral hygiene instructions (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Regardless of their range of offerings, these services are an excellent way for communities to increase dental disease awareness and improve oral health (Ahovuo‐Saloranta et al., 2016; Ahovuo‐Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devlin & Henshaw, 2011; Dye et al., 2015; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010).

Decreasing Oral Health Disparities

Dental colleges, universities, and professional organizations implement free preventive dental care programs in an attempt to increase access to dental care and decrease oral health disparities (CDC, 2015). However, attendance rates are often low (Divaris et al., 2012; Glenny et al., 2013; Spence et al., 2014). Parents of these high-risk

children do not allow their children access to these programs, thereby increasing challenges to necessary preventive dental care (Divaris et al., 2012; Glenny et al., 2013; Spence et al., 2014). Identified barriers to care include lack of transportation, money, insurance, and access to dentists; loss of wages and time; and fear (Devlin & Henshaw, 2012). However, it has been indicated that even when these barriers have been removed by reaching children at school, parents have not signed consent forms (Divaris et al., 2012; Glenny et al., 2013; Spence et al., 2014). Children are dependent on parents to meet their oral health needs (Divaris et al., 2012; Glenny et al., 2013; Spence et al., 2014).

Culture, Attitudes, and Behaviors

This study explored the perceived parental perceptions of free preventive oral health programs. It unveiled attitudes and preventive behaviors of parents and cultural preventive practices of specific ethnic backgrounds. Dodd et al. (2014), adds to the knowledge base by suggesting that perceptions of dental disease is inadequate in low socioeconomic neighborhoods. In fact, Dodd et al. (2014), indicated parents as one of the barriers to adolescent dental absence. Parental responsibility to work, and low self-efficacy are barriers for adolescent dental health (Dodd et al., 2014). Horowitz et al. (2013), suggested most adults in Maryland, did not have enough knowledge regarding tooth caries or how to prevent it. Dodd et al. (2014), determined most adolescents indicated pain as the main reason for visiting a dentist. In fact, adolescent participants failed to connect preventive care with lessening of pain or dental disease (Dodd et al., 2014). A historical study by Kelly et al. (2005), indicated that dental visits were for pain

not treatable at home. Similarly, individuals from low socioeconomic backgrounds felt dental care was less critical to their overall health, and that medical issues trumped dental care (Kelly et al., 2005). This study added to knowledge because it specifically addressed parents' perceptions, and not that of adolescents. Emphasis was also placed upon how individuals from low socioeconomic neighborhoods gathered oral health information (Dodd et al., 2014). Guarnizo-Herreno & Wehby (2012), indicated higher unemployment rates accounted for parental psychosocial status, and information gathering accounted for cultural preventive practices. According to Dodd et al. (2014), changing current perceptions of preventive oral health care from a luxury to a necessity required multiple educational interventions. This study explored current parental perceptions of care seeking behaviors, to fulfill a gap in the literature of limited evidence-based knowledge, regarding how parental influence effects the preventive dental care seeking behavior for their children who supports effective community-based interventions.

Gaps in the Literature

This research project investigated an extensive amount of literature on the topic of oral health disparities and children. In doing so, multiple gaps in literature were found. I highlighted them in chronological order to enable understanding of how and why this current project fulfills the research gap. Kelly (2005), executed a qualitative study on diverse ethnic/racial backgrounds on caregivers that do not seek preventive care for their Medicaid enrolled children. The limitations from this study include the lack of diversity of participants, and future research suggested to explore cultural factors that may be

necessary to enhance community based interventions (Kelly, 2005). The lack of exploration on cultural factors is considered a gap in the literature. Baldani et al. (2011), revealed and confirmed that cultural beliefs and perceptions regarding oral health were important individual barriers. Guarnizo-Herrano & Wehby (2012), quantified contributions of socioeconomic status, demographic, and neighborhood characteristics to oral health disparities. Their limitations include the lack of data on maternal attitudes and behavior of preventive health seeking (Guarnizo-Herrano & Wehby, 2012). Recommneded future research, and the gaps in literature made it necessary to explore cultural and maternal attitudes and preventive behavior seeking oral health care. Chi (2014), examined the relationship between caregiver's refusal of preventive immunizations and preventive fluoride varnish. The limitations of the study suggested parents with private insurance had higher response rates than those with publicly insured or uninsured children. Again, indicative of gaps in literature, future research identified social and behavioral factors related to parental/caregivers' refusal of preventive care, with the goal of developing multidisciplinary strategies to help guardians make optimal preventive care decisions for their children (Chi, 2014). Rahbari and Gold (2015), in a pilot study found that a mother's oral hygiene habits and frequency towards dental visits were related to the oral hygiene habits and frequency in dental visits of their toddlers. Again, confirming the need for future research to understand the multiple factors of oral health relating to women and their children. This study explored current parental perceptions of preventive care seeking behaviors to fulfill the gaps in the literature presented by Chi (2014), Guarnizo-Herrano and Wehby (2012), and Rahbari and Gold

(2015), of limited evidence-based knowledge regarding how parental influence affects the preventive dental care seeking behavior for their children which will support effective community-based interventions.

Summary and Conclusions

The current literature review includes current research in the area of preventive dental care, potential barriers to care, attitudes and behaviors that may affect preventive seeking dental care, effects of low socioeconomics on dental caries, and the increasing disparities in children's oral health. Dental sealants, when placed on permanent molars, are a cost-effective way to reduce childhood caries (Ahovuo-Saloranta et al., 2016; Ahovuo-Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devine, 2011; Devlin & Henshaw, 2011; Dye et al., 2015; Kierece et al., 2016; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Oral health care interventions attempt to reduce oral health disparities in children by placing free dental sealants on the biting surface of third-grade children from low-performing Title 1 elementary schools (Ahovuo-Saloranta et al., 2016; Ahovuo-Saloranta., 2013; Beck et al., 2015; CDC, 2015; CDHP, 2014; Chi et al., 2014; Devine, 2011; Devlin & Henshaw, 2011; Dye et al., 2015; Kierece et al., 2016; Northridge et al., 2015; Olmstead et al., 2013; Siegal & Detty, 2010). Some parents are increasing the risk and oral health disparity gap by not allowing their children access to these programs (CHCS, 2015; Chi et al., 2013; Chi, 2014; Glenny et al., 2013;). Horowitz et al. (2013), and Lee et al. (2012), among numerous others, confirm barriers to preventive care such as access, low dental literacy, and low socioeconomic neighborhoods (CDC, 2015; Guarnizo-Herreno &

Wehby, 2012). Attitudes and cultural oral care behaviors of low-income Mexican women such as brushing with baking soda described as preventive oral care (Miltiades; 2013). What's known is that various racial groups such as Black, Hispanic, and Mexican children from low socioeconomic status face multiple barriers to preventive oral health care (Askelson, 2014; CDC, 2015; Chi et al., 2013; Chi, 2014; Guarnizo-Herreno & Wehby, 2012; Miltiades, 2013; Rahbari & Gold, 2015). Multiple gaps in the literature indicated the need to explore oral health perceptions and dental care seeking behaviors of parents for their children (Askelson, 2014; CDC, 2015; Chi et al., 2013; Chi, 2014; Guarnizo-Herreno & Wehby, 2012; Miltiades, 2013; Rahbari & Gold, 2015). This current study extended knowledge around barriers to children's care by exploring parental perceptions of free preventive oral care programs for their children. Understanding the parental barriers and perceptions of free preventive care programs increased the knowledge base to develop appropriate clinical and policy solutions aimed at optimizing the oral health of children. In the following chapter, the methodology that was used, participants, sample size, question design, clarification of coding and analysis procedures, and interpretation of results towards central themes exploring perceived parental barriers of free prevention programs for children is discussed in detail.

Chapter 3: Research Method

Introduction

In this research project, a qualitative case study design was used to explore oral health awareness, emotions, and attitudes in relation to the dental care behaviors of parents and caregivers of children aged 5-15 years in underperforming Title I New York City elementary schools. Caries affects children's permanent teeth the most between the ages of 5 and 15 years (CDC, 2015). A qualitative design has distinguished potential barriers to free preventive dental care programs for children. Comprehending the numerous viewpoints of parents concerning the oral health of their children may allow for free preventive oral health care programs to be successful in the community. By assimilating into the neighborhood and engaging parents through open-ended questions and multiple conversations, I sought to understand sensitivities surrounding preventive oral-care-seeking behaviors. The goal was to find out whether these programs should continue with an inferior success rate or attempt to recognize and reduce perceived parental barriers to care. A greater understanding of perceived parental barriers may assist in efforts to increase rates of informed consent for children to participate in these programs and consequently promote an increase in rates of high-risk children receiving preventive dental care. Understanding parental refusal of preventive care may help in identifying the social, economic, and policy implications of oral health decision making (Chi, 2014).

In this chapter, a detailed description of the research study design is presented, including the rationale, the research questions, my role as researcher, the methods for

selecting and recruiting parent participants, data collection procedures, and the strategy for data analysis. An overview of ethical concerns related to the study and the issue of trustworthiness is also presented.

Research Design and Rationale

The primary qualitative research question was the following: What perceived barriers would prevent parents from having their children attend a free preventive dental care program?

The subquestions were the following:

1. Is lack of trust an issue for parents?
2. Are cultural issues perceived as a barrier?
3. How can free preventive dental care programs more efficiently reach children?
4. What are the real-life perceptions of these programs by parents?
5. What other life events prevent children from attending?
6. What are parents' perceptions of preventive dental care?
7. How was parents' dental care addressed when they were children?

In a qualitative study, a researcher can adjust questions as themes emerge during the data collection process.

A qualitative case study design was undertaken for this inquiry. In this study, I examined the emotions and attitudes of parents toward preventive oral health programs, as well as the potential reasons why parents do not escort their children to free preventive dental care programs. This qualitative case approach was the best fit for this study

because it involved exploring a real-life bounded system in a place and a unit in time (Creswell, 2013). I sought to investigate parental perceptions with in-depth, detailed data collection involving observations, open-ended interviews, audiovisual recordings, documents including emails and texts, and social networks (Creswell, 2013). The aim of the research was to illuminate and understand this unique problem and concern (Creswell, 2013). The qualitative case study design facilitated exploration of perceived parental barriers within a context of free preventive dental care programs using a variety of data sources (Baxter & Jack, 2008). A case study ensured the use of multiple lenses to explore various facets of the issue, which allowed the phenomenon to be revealed and understood (Baxter & Jack, 2008; Creswell, 2013). The evidence was analyzed with written transcription of conversations inside the software program NVivo11 Pro. The goal was to uncover and identify repeated themes related to the phenomenon (Creswell, 2013).

Culture and low income are important contributors to high dental caries rates. However, the use of ethnography would not have been appropriate for this study, in that the group of interest would have been too large. Further, there was more than one ethnic group in the group or case of interest (CDC, 2015). Rates of dental caries are highest in Black, non-Hispanic and Hispanic of Mexican descent communities, which makes it challenging to narrow down a specific culture of interest (CDC, 2015). Another reason that a case study was the best fit is that it provided me with an in-depth understanding of parents' perceptions of preventive oral health behaviors as a case rather than a large disproportionate group. A quantitative study would also not have been appropriate

because it would have led to numerical data or information that could be turned into numbers (Patton, 2014). A quantitative study would have involved making statistical inferences from data. A qualitative study was more appropriate because it made it possible to gain a deeper understanding of feelings, opinions, attitudes, and trends in thought among parent participants.

Role of the Researcher

Case study research suggests the importance of presenting the researcher's position in the study (Creswell, 2013). I have experience in preparing and implementing preventive oral health programs for children with oral health disparities. I am involved with this issue both professionally and personally. My professional involvement comes in the form of helping to initiate free preventive oral health programs with the New Jersey Dental Hygienists Association (NJDHA). On a personal level, I volunteer my time with Give Kids a Smile (GKAS) and Wings of a Dove Foundation to offer dental health education and to implement preventive oral care to decrease oral health disparities in children. I do not believe that my experience in this area placed me in any supervisory or power relationship over my parent participants. I will use any knowledge gained from this study to enhance future preventive programs.

For this study, I first entered the community as an outsider researcher, and with time I began to understand the settings and culture of the participants and assimilated as an insider researcher. My role as the researcher was to engage myself in the community for advancement of facial recognition, show my intentions, and encourage free and honest conversations with the parent participants (Capella University, 2017; Robert

Wood Johnson [RWJ], 2008). Assimilation within the community allowed for credible, trustworthy interviews, documentation, and audio data collection. Biklen (2010) suggested that the quality of evidence relates to the credibility of the investigator's fieldwork. Per Patton (2014), the credibility of the inquirer depends on training and presentation. I was personable and professionally prepared because these qualities have been shown to provide more successful responses. Training and experience ensure trustworthiness. I had one colleague who culturally matched the participant demographic assist me with the interview process, but the colleague did not have access to the interviews due to the need to protect participants' privacy. Having one colleague with me who culturally matched the demographic was necessary to gain parent participants' trust and assure them of the ability to speak freely.

There was no known researcher bias, and to decrease the potential for future bias, I had one colleague who was experienced with qualitative data review and code the information to cross reference for similarity in findings. I coded the data for themes, and I had my colleague code and triangulate the data to decrease any researcher bias. I decreased bias by positioning myself ultimately as the narrator of themes and stories presented by the parent participants. A considerable limitation of qualitative research is that the results can easily be influenced by the researcher's personal biases and worldview.

The design was purposefully descriptive thorough understanding of participants' feelings (Miles, Huberman, & Saldana, 2014). The descriptions developed through this study are rich, meaningful, and thick (Miles et al., 2014). Ensuring trustworthiness and

alleviating doubt concerning investigator bias began with making sure that the accounts of the participants made sense, sounded true, and reflected the voice of the participants, displayed by readers living vicariously through them (Maxwell, 2013; Miles et al., 2014). For consistency, I ensured that rival explanations were investigated and that the findings could be reproduced in other studies (Maxwell, 2013; Miles et al., 2014; Patton, 2015).

The data are displayed in a matrix, which shows sequential steps that were used to link the emerging themes and provide credibility (Maxwell, 2013; Miles at al., 2014). Triangulation of data for the confirmation of findings was conducted to decrease potential researcher bias (Maxwell, 2013; Miles et al., 2014). Triangulation enhanced trustworthiness when I collaborated with another researcher during data analysis (Maxwell, 2013; Miles et al., 2014).

Justification for Incentives

I interviewed the parents of children living in a low socioeconomic neighborhood. Money, time, and lack of transportation to the interview were potential problems for the participating parents (CHCS, 2016; Glenny et al., 2013). To remove these barriers, it was necessary to offer food (i.e., a light breakfast or lunch), a MetroCard for transportation, and a small incentive for loss of work wages. A MetroCard for 20 participants maximum was purchased at $110. Each MetroCard was $5.50 each. A small breakfast or light lunch for 20 participants would cost $100. However, interviews were conducted eight at time and breakfast/lunch was not necessary. Incentives were necessary to get parents to open up about the perceived barriers to preventive oral health programs for their children. To provide such incentives, I offered $15 gift cards for participation, which I estimated

would cost $300 for 20 participants. Incentives may have some implication for participation bias (Hsieh & Kocielnik, 2016). Participant bias occurs when a study becomes non representative due to a disproportionate number of participants who have similar traits (Patton, 2015). However, researchers have argued that incentives provide a broader participant base (Hseih & Kocielnik, 2016; Singer & Cooper, 2008). The total cost to run this study was $510.00.

Methodology

Participant Selection

For this study, I reached and interviewed the parents/caregivers of children between the ages of 5 and 15 years. Parents' ages ranged from 18 to 60 years. These parents had incomes below poverty level, which is less than $24,240 for a family of four, and they resided in low socioeconomic neighborhoods (Office of the Assistant Secretary for Planning and Evaluation, 2015). The parents came from diverse cultural and ethnic backgrounds that represented the high-risk demographic for children with oral health disparities. For instance, they were of Black, Hispanic, Chinese, and Mexican decent. Although participants' racial and ethnic backgrounds were significant to this study, the study was open to anyone who fits the demographic criteria. Participants had one or more child attending an underperforming Title I elementary public school that provided free lunch programs. The elementary schools represented in my study offer programs that provide free lunch for children. These Title I elementary public schools are in communities where residents are living below poverty level and are described as having low socioeconomic status. Additionally, parent participants in this study never had a

child attend a free preventive oral health program. Parent participants spoke and read English. Exclusion criteria applied to minors and anyone who was not a parent, guardian, or caregiver of a child between the ages of 5 and 15 years.

Sampling

In qualitative inquiry, purposeful sampling focuses case selection in sequence with the investigation's purpose, questions, and data collected (Patton, 2015). Purposeful sampling is about selecting participants with information-rich cases to study. Cases are selected related to the phenomenon of interest (Patton, 2015). The participants were selected due to the need to explore parents' perceptions of free preventive oral health programs and preventive oral-care-seeking behaviors of parents for their children. Parents were purposefully sampled and asked to participate in the research project by systematically selecting parents that had one or more children in an underperforming Title I elementary school, and did not sign the consent form for an oral health program (Cohen & Crabtree, 2006).

Sample Size

There are no true sample size rules in qualitative research (Marshall, Cardon, Poddar, & Fontenot, 2013; Patton, 2013). Qualitative research requires continuous reorganization. Miles (2014), suggested that a chosen sample size may not supply a researcher with data-rich sources. Qualitative samples need to be purposive rather than random (Miles, Huberman, & Saldana, 2014). Size defines the ambitiousness of the inquiry, what is affected, what will be beneficial, what will have virtue, and what is done with the available time and resources (Patton, 2013). A small sample size can produce an

understanding that is rich in data, whereas a large sample size can be useful in exploring phenomena and documenting diversity (Patton, 2015). Additionally, the size of a sample can be fluctuated (Patton, 2015). Sample size becomes a matter of subjective judgment based on making relevant associations, repetitive information, measuring explanations as well as reaching saturation (Patton, 2015).

Justifying the size of a sample in qualitative research can be accomplished in one of three ways (Marshall et al., 2013). First, a researcher can cite the recommendations of qualitative methodologists (Marshall et al., 2013). Second, a researcher can cite methodologies that have been used in previous studies with similar questions and designs (Marshall et al., 2013). Finally, a researcher can demonstrate saturation within the data (Marshall et al., 2013).

According to Miles, Huberman, and Saldana (2014), the minimum sample size for a multiple case study is five. Creswell (2013) suggested six for a case study and no more than 20-30 interviews for grounded theory. According to Marshall et al. (2013), for a single case study, 15-30 interviews are needed, depending on culture and study design. For this design, I recruited 20 parent participants. My rationale was that if 20 participants showed up, it could be expected that 20 participants would explain why they did not escort their children to a free preventive oral health program. This number had been used in previous studies and modifications can be made for data saturation (Marshall et al., 2013). Twenty participants were a starting point; this target was decreased when saturation was reached sooner than anticipated (Creswell, 2013; Huberman, & Saldana, 2014; Marshall et al., 2013; Miles,2014; Patton, 2013). With this research, I gained

information-rich data to help future initiatives determine the reasons that parents may deny consent for their children to attend free preventive oral health programs or may be "no shows" at these programs. Cultural differences were explored, along with cultural access to preventive dental services (Marshall et al., 2013). Purposeful strategies leave the question of sample size open, which is a direct paradigm of qualitative inquiry (Miles, Huberman, & Saldana, 2014). The principle of saturation was used to determine sample size. After 20 interviews, it was expected that no new themes would emerge from the data and that the data would become repetitive (Creswell, 2013; Patton, 2015; Rudestam & Newton, 2015; Saldana, 2016; Walker, 2012). Saturation ensured that adequate amounts of quality data had been collected (Walker, 2012). Saturation was reached in this study when all the data had been analyzed and it was deemed unlikely that new data would add to the story, phenomenon, theory, or framework (Mason, 2010).

Participant Recruitment

For the purpose of this study, I attempted to contact parents who had not consented to a dental examination for their children at underperforming Title I New York City elementary schools. I had access to the location of parents through the New York University College of Dentistry Pediatric Department, which was currently at the school providing dental examinations and oral health services for high-risk in children in third grade whose parents had provided consent. Parents of third grade children had been asked to sign a form if they *did not* want their children to participate in a clinical examination by a dentist during school hours.

I posted a recruitment flyer for this study in public places near the underperforming Title I New York City elementary school, such as grocery stores, cafes. markets, and public playgrounds, indicating an opportunity and incentive for parents to discuss their lack of consent if they were willing to do so. Additionally, Wings of a Dove Foundation, a neighborhood community church program that implements oral health preventive programs for low-income children, had agreed to post a recruitment flyer around the vicinity of the church. Parents attending the church fit the same demographic and inclusion parameters. After receiving all relevant ethics committees' approvals, I recruited parents using a flyer posted around the church asking if they would like to participate in the study. If they were willing to participate and fit the inclusion criteria, parent participants were asked to sign an informed consent form prior to an interview. The consent form contained information on participant privacy, the voluntary nature of participation, the rationale for the study, risks and benefits of being in the study, incentives, and my contact information.

Instrumentation

The initial data collection instrument; an observation sheet, was inspired by a template used by Aussie Childcare Network (2016). The observation sheet included two narrative boxes. I titled the top box observation, and the bottom box interpretation (see Appendix A). Observations strength is the plentitude of narration and imagery (University of California, 2015). Observation is the quintessence of appreciating an understanding of the participant's natural settings, and their way of viewing the world around them (RWJF, 2008). Observations included body language, attitudes towards the

interviewer, preventive programs, and their child's oral health. The observation checklist allowed me to visually describe the parent participants during, and after data analysis.

I also used an interview protocol sheet. Interviews were conducted face to face after upon completion of the informed consent sheet (Maxwell, 2005). Interviews consisted of semi-structured, open-ended questions, organized around the primary research question. The goal of the research question was to obtain a comprehensive understanding of the perceived parental barriers to free preventive dental care programs for their children (Rudestam, 2011). The interview protocol sheet enabled me to stay focused, and on track during questioning. The interviews were audio recorded, and I took interview notes on site. Information gathered was transcribed at a later time (Nalzaro, 2014). I created the questions on the protocol sheet, they were inspired by a similar seminal qualitative study by Kelly et al. (2005). Kelly et al. (2005), utilized a similar interview instrument during seven focus group sessions containing an average of nine participants in each. Kelly et al. (2005), compared White and African American caregiver utilizers and non utilizers of preventive dental care services for their children. It was appropriate for me to use this instrument for context, however, modifications were made to include multicultural specificity which the Kelly et al (2005), study lacked (see Appendix B for Revised Survey). The interview questions relied upon TTM to show self-efficacy in parental dental care seeking habits, and self-efficacy of their children's oral health. This study ventured to describe what parents find important about oral health that might make them visit a dentist or take their child to a preventive program. SCT was also identified from interview questions when parents were asked to express where they

learned about dental care, and when should they take their child to the dentist. Social learning or imitating behaviors played a role in how often children or parents receive dental care, and for what reasons. Content validity was established by the appropriateness of the tools, processes, and data (Lueng, 2015). For instance, data collection and analysis enhanced validity by using triangulation of researchers, resources, theories, and a well-documented audit-trail of materials and processes (Lueng, 2015). The current study aimed to identify and explore any culturally specific issues during the interview, data collection, and analysis process. The interviews were audio-taped to allow for precision in data collection, verbatim transcription, and analysis. The observation checklist and interview protocol questionnaire were two data collection instruments that enabled collection of parent participant's feelings and attitudes towards free preventive oral health care programs.

Procedures for Data Collection

The first question, what perceived barriers would prevent a parent from having their child attend a free preventive dental care program? Data were collected through observation such as environment, attire, and ethnicity. To identify body language, tone, and attitudes, both observation and responses during interviews toward preventive dental care was be illuminated. Immediately following initial observation questions from the interview protocol was asked. These questions such as; how acceptable do you find free preventive oral health programs enabled data collection. Audio recording interviews allowed for verbatim analysis and triangulation of the data to ensure that consistency in interpretation of the data occurred. The second question; is lack of trust an issue for

parents? Was answered through interview question since you have never taken your child to a preventive oral health program, is lack of trust an issue. The third question; are cultural issues perceived as a barrier? Was answered by interview questions Are there any cultural or racial concerns/reasons why a parent or caregiver would not have their child/children attend a preventive care program? Question four; how can free preventive dental care programs more efficiently reach children? Was answered by the interview question what are some reasons people might not take their children to the dentist. What are the real-life perceptions of these programs by parents? Was answered by the interview question; how acceptable do you find these programs. What other life events prevent children from attending? Was answered by the interview question; what are something things that might make it difficult to take a child to the dentist. What is the parent's perception of preventive dental care? Was answered with the interview question; what are your experiences with dentists that accept Medicaid for your children. How was the parents dental care addressed as a child? Was answered by the interview question; how have you felt about the dental care you received. All interviews were audio recorded.

Data Collection

The data were collected by interviewing parents from underperforming Title I elementary schools in New York City, in a place of choice by participants; such as a local library, or facility of parent's choice. I collected all data. The interviews were conducted at increments of eight interviews in one day throughout a week. This entailed two to four interviews a day for one week or longer. I scheduled interviews around convenient times for the participant parents. The interviews were timed and last for maximum of 20

minutes. The data consisted of journaling during the study, at the program setting, and around the neighborhood. Audio recording materials recorded conversations and interviews. Other documentation collected was any other material including messages sent through texts or emails with the participants. If recruitment of participants was low, a follow-up plan was to recruit parent participants at a Brooklyn Church named Emmanuel Church of God, through Wings of a Dove Foundation that contains the same cultural characteristics and demographics as the parents from underperforming Title I elementary schools. A total of nine parents were recruited through Emmanuel Church of God. Same interview and data analysis procedures were utilized. As parent participants exited the interview they were thanked for their time, given incentives for participating, and advised that their questions were helpful. They were also advised that a 1-2-page summary of results would be available for their review after the results of the research were analyzed. Parent participants were asked if interested they may be recruited for additional follow-up interviews if necessary. However, additional follow-up has not been indicated.

Data Analysis Plan

Qualitative research generates large amounts of documentation. The interview, researcher's notes, and observations were transcribed into a matrix and placed into the software program NVivo11 Pro. The matrix condenses data (Miles, Huberman, & Saladana, 2015). Data compression at best, condensed, polished, balanced, and organized data so that conclusions were drawn (Miles et al., 2015). Before the formation of the matrix, the researcher bolded, highlighted, underlined, or used color rich text, of words and passages that felt worthy of future consideration (Saldana, 2015). In other words, I

built a logical chain of evidence (Miles et al., 2015). Precoding scrutinized the data by pointing to deeper issues that deserved attention (Miles et al., 2014). Coding and categorizing data for themes were done before coding (Miles et al., 2015). Coding and analysis required continually revisiting the data and scrutinizing the categories of data until I was sure that the themes and categories used to summate and describe the findings were honest and an accurate reflection of the data, that was gathered (Hancock, 1998). For this study, I recorded ideas, and journaled in the right column of transcripts that abetted to make evolving codes more accountable. Any discrepant data was analyzed further to avoid sticking with first impressions, or clinging to an initial hunch (Saldana, 2015).

Issues of Trustworthiness

To ensure credibility I identified as the role of a skeptic (Northern Illinois University, 2013). By doing so, rival explanations of phenomena that arose were checked with the data collected and required further data collection to prove or disprove phenomenon. This skepticism allowed me to eliminate other confounding variables that might be a possible causal relationship to perceived parental barriers to free preventive oral health care programs (Northern Illinois University, 2013). Additionally, I used method triangulation with observations and interviews. Method triangulation allowed for double data collection and enhanced the strengths and weakness of each method (Northern Illinois University, 2013). I also utilized data triangulation in the form of conducting interviews at different times and in different places. To ensure transferability I used rich content and contextual description to provide enough information about the

participants, participant selection, sample size, data collection and analysis methods, to allow for the study to be replicated and conducted again with a different group of people or in a different setting (Northern Illinois University, 2013; Patton, 2015). The dependability of the study was maintained through investigator triangulation, and an audit trail. Investigator triangulation occurred with the use of one additional colleague that reviewed the audio recordings, analyzed the participant behavior from observed data collection form, and in interpreted the data for uniformity of codes and themes (Northern Illinois University, 2013). An audit trail also maintained and added continuous documentation which allowed a colleague to verify descriptions and aid me during analysis and coding (Northern Illinois University, 2013; Patton, 2015; Saldana, 2015). Confirmability was insured by journaling during the research process. Constant critical self-reflection regarding potential bias from me was recorded (Northern Illinois University, 2013; Patton, 2015; Saldana, 2015). Additionally, inter coder agreement was done by having one of my colleagues test my codes by evaluating data and providing their interpretation. Finally, inter coder reliability was ensured with thick rich description and verbatim information to reflect the meaning of the parent participants (Northern Illinois University, 2013; Patton, 2015; Saldana, 2015). Collegiate review of data provided me with solid evidence for interpretation and conclusion of evidence (Northern Illinois University, 2013; Patton, 2015; Saldana, 2015).

Ethical Procedures

For this study, Walden Institutional Review Board (IRB) reviewed and accepted the interview questions and research methodology. IRB approval number is 04-21-17-

0456669 and expires on April 20th, 2018. IRB ensured that all human subject research be conducted in agreement with all federal, institutional, and ethical guidelines. IRB safeguards that questions relating to the participation of parents and caregivers in the study were clear, and did not contain sensitive content. Ultimately IRB protected the rights and welfare of participants in a study. The ethical concerns regarding parent participants in this study were privacy. I made every attempt to protect the private lives of parent participants.

In qualitative research, the narrative can cause a divulgence of damaging representation. This technique can cause uneasiness for participants as the narrative or dissemination of results can include words or characterizations that intimately mirror the target group. I was conscious of how this information would portray certain subgroups. I was cognizant and mindful of conflicts of interest and sensitive issues surrounding participant's views, culture, and feelings. Ultimately, I am accountable for protecting the privacy and interests of all participants.

Every parent participant signed a consent form. The consent form described the study and explained the research topic. It was written in English, and on a grade level that the parent participants understood. If at any time during the interview a parent felt uncomfortable with the line of questioning, they could leave at free will, with no harm to them. Furthermore, I removed any identifiable and personal information that might be traced back to the participants. All data collected is kept in my locked desk drawer. After five years, all data will be destroyed.

Summary

In this chapter, the research procedures for the study regarding perceived parental barriers to free preventive oral care programs for their children were explained. I have provided a detailed interpretation of the qualitative research design, and a rationale for a case study approach appropriate for this study. I presented a sampling plan, study settings, procedures for recruitment, data collection and analysis methods, based on a case study approach to qualitative inquiry. I also discussed any potential bias and trustworthiness threats, and described a series of techniques, including the methods of triangulation, to address these potential threats to the credibility of the research. Furthermore, I included the observation checklist and an interview questionnaire in Appendix A and Appendix B. Chapter 4 includes the results of this study, where I describe the gathered data along with the method of analysis and a discussion of the results.

Chapter 4: Results

Introduction

The purpose of this qualitative case study was to explore parental perceptions and potential parental barriers to free oral health prevention programs for children. It was an attempt to identify any repetitive themes that would prevent a parent from signing a consent form or allowing a child to participate in oral health initiatives.

The primary qualitative question was the following: What perceived barriers would prevent parents from having their children attend a free preventive dental care program?

The sub questions were the following:

1. Is lack of trust an issue for parents?
2. Are cultural issues perceived as a barrier?
3. How can free preventive dental care programs more efficiently reach children?
4. What are the real-life perceptions of these programs by parents?
5. What other life events prevent children from attending?
6. What are parents' perceptions of preventive dental care?
7. How was parents' dental care addressed when they were children?

This chapter highlights the setting, demographics of the parent participants, data collection techniques, data analysis, evidence of trustworthiness, and results.

Setting

Parent participant interviews were conducted at various locations to enable cultural diversity in the findings. Interviews began in the beginning of May and ended at the end of June 2017. The first set of interviews was at a Health Fair located in China Town, NYC, outside Public School (PS) 130. The interviews captured a small, close-knit Asian community as well as culturally diverse passersby who were interested in discussing preventive-care-seeking behaviors. The second setting was in Flatbush, Brooklyn, outside the church of Emmanuel of God. Once again, parent participants were those who did not allow their children access to free oral health programs. Ethnic backgrounds of residents in this area of Brooklyn included Haitian, Jamaican, Dominican, and African American. The final group of parents were recruited outside Public School 3, in Staten Island, NY, after their children had been escorted onto a school bus on Staten during an early morning interaction between me and parental guardians. Parent participants were Hispanic, and those who did not allow their children access to free oral health programs.

Demographics

There were two men and 18 women parent participants. Parent participants' ages ranged from 22 to 49 years. Each parent had at least one child enrolled in an underperforming NYC public elementary school. Children's ages ranged from 18 months to 20 years. The average household in the study had two children, but participants had as many as eight. Parent participants were from low socioeconomic backgrounds and were living in low-income neighborhoods. In terms of ethnic and cultural background, there

were five Asian American participants, two Caucasian participants, four Hispanic participants, and nine African American participants.

Data Collection

For this study, I interviewed 20 parent participants using a 22-question open-ended questionnaire (see Appendix). Each parent participant read and signed the consent form and matched the inclusion criteria. Once the parent participants agreed to participate, they read and signed the consent form. They were asked to agree with being audio recorded. After parents provided consent for audio recording, the interviews took place. An initial conversation included a review of the purpose of the study and the particulars in the consent form. Parent participants were reminded that participation was voluntary. Participants were also advised that they could end the interview at any time. Their privacy was emphasized, and they were assured that their identities would be protected and would never be revealed. The audio recorded interviews lasted between 5 and 15 minutes, depending on how much the parent participants wanted to elaborate on their answers. The interview data were audio recorded using a digital recorder. Additionally, notes were taken as parents spoke, and as parents exited the interview, I wrote down my thoughts regarding the interaction on the questionnaire and observation form (see Appendix). I thanked parents for their time and participation and gave each parent a $5.50 MetroCard and a $15.00 American Express gift card. The audio recordings were immediately downloaded into the sound organizer on my laptop. These audio recordings were then uploaded into NVivo 11 Pro, where they were transcribed verbatim by me. The transcribed audio recordings were then highlighted for themes and coded.

Following the coding, a memo was created describing the interview and expanding on ideas that emerged. The memos were linked to each of the transcribed interviews in NVivo 11 Pro.

Characteristics of the parent participants are described in Table 1. Cultural diversity by ethnic background is described in Table 2. Data were collected in the manner described in Chapter 3 with no variations.

Table 1

Characteristics of Parent Participants

Characteristic	Number of individuals
Male	2
Female	18
Average age	39
Age group	
Under 30	5
31-41	7
Over 42	8
Average number of children	2.9
Number of children per parent	
2 children	11
3 children	5
4 children or more	4

Table 2

Cultural Diversity of Parent Participants

Ethnic background	Participants
Caucasian	3
Hispanic	4
African American	7
Asian	5
Indian	1
Total	20

Data Analysis

Following the case study methodology described by Saldana (2015), data analysis consisted of gathering comprehensive and in-depth, detailed, rich information about each parent participant by precoding, selective coding, creating analytic memos from observations, and diagramming. Using case study methodology, data collection and data analysis were done simultaneously, using a process of deduction, validation, and inductive reasoning (Saldana, 2015). Data collection was stopped at 20 participants, at which point saturation was achieved. Data analysis continued well after the data collection cycle. The purpose of data analysis was to establish an understanding of why parents would not allow their child or children to attend a free oral health program.

Precoding

The precoding method consisted of highlighting and bolding notable quotes that were worthy of attention during transcription (Saldana, 2015). Codes were created as new concepts emerged. As the coding emerged, sub codes were added that highlighted similar concepts. A total of 20 interviews were conducted, transcribed, and coded. A total of 23 nodes were created, resulting in nine categories. Table 3 includes the nine categories and themes and the frequency of coded segments for the parent participants.

Table 3

Table of Codes and Categories and Themes

Categories and themes	Parent participants
Too busy, no time	5
Cost	7
Cultural	17
Immigrants	12
Lack of insurance	4
Lack of trust	21
Scared	9
Transportation	5
Importance of referrals	6

Analytic Memos

Following each interview, I created a memo or preliminary jotting (Saldana, 2015) summarizing the interview and commenting on potential concepts and participant

observations. Analytic memos were set up to expand on new or emerging concepts. Additionally, memos were used to store demographic information such as participants' age, number of children, and date and time of interview. Memos were then updated to summarize the interviews and analytic memos. This updated memo began the process of moving concepts from codes to themes and categories.

Selective Coding

The concluding phase of data analysis was selective coding. This part of the analysis allowed for inductive reasoning by connecting codes to repetitive themes, and then final categories of expressed words, descriptions, and repetition of feelings expressed by parent participants toward free oral health prevention programs. In this process, direct quotes were taken from the transcribed interviews and original concepts and narrowed into nodes by adding verbatim feelings of parent participants. The use of diagrams was developed to describe the frequency of data.

Evidence of Trustworthiness

To ensure credibility, method triangulation was used with observations and interviews. This double data collection technique enhanced the strengths and weaknesses of each tool chosen (Northern Illinois University, 2013). Data triangulation in the form of conducting interviews at different times and in different places was added as well. Credibility was also assured by using the interview questions as a guide and keeping the interview focused on the research questions.

To ensure transferability, rich content and contextual descriptions were provided containing sufficient information about the participants, participant selection, sample

size, and data collection and analysis methods. This abundance of description will allow for the study to be replicated and conducted again with a different group of people or in a different setting (Northern Illinois University, 2013; Patton, 2015).

The dependability of the study was maintained through investigator triangulation and a detailed audit trail. Audio recorded interviews, along with transcriptions, were sent to the committee chair for intercoder agreement. All codes, categories, and themes were reviewed by the committee chair. Coding began immediately as I transcribed the interviews. Transcripts were created by listening to each interview and typing each response to a question word for word, reviewing and rewinding as needed. Transcribing the recording verbatim allowed me to catch exact words and phrases from parent participants. Confirmability was ensured by journaling during the research process and constant self-reflection reduced bias.

Results

This eight research questions organize this results section. At the end of this chapter, a unified explanation of the potential barriers to free preventive oral health programs is presented.

Primary Research Question

The primary research question was as follows: What perceived barriers prevent parents from having their children attend a free preventive dental care program?

The key themes and categories for the primary research question are presented in Table 4. This question focused on what parents expressed as the reasons their child or children were not attending free preventive oral health programs. The themes and

categories were supported by comments by parent participants. The themes were called *too busy*, *no time* and *scared*. The categories related to this theme were “not allowed as a child, don’t care, laziness, time, and not important.” For instance, Mom14 expressed, “they’re scared, or the parents themselves are scared, or they don’t have the time, it’s not important, not the number one thing.” Mom14 suggested that parents “don’t gives themselves enough time to bring their kids there.” Mom13 said, “I would say scheduling, that it could be transportation and scheduling and staying organized if you have more than one kid.” Mom16 suggested, “some people might not believe in doctors like whatsoever, poor time management, no time to take them or they just don’t care.” Mom3 identified the following possibilities: “no insurance and that it’s a stigma that going to the dentist is scary, and it might hurt.” Mom5 admitted, “sometimes I don’t have time *laughs* to make an appointment to go there and get it done, that the hardest part.” Mom6 thought that lack of attendance might occur “because they don’t care first of all or they don’t understand the consequences or they’re not doing any prevention.” Mom8 offered, “maybe the child is scared, or maybe the parents feel like the work their child may need might be a lot, say, the health insurance doesn’t cover the expenses for it.” Mom9’s explanation was “way too busy.” Mom10 cited “convenience, laziness, getting rest or relaxing.” Mom12 explained, “well, like I said, I think it’s, umm, a lack of information.” Further, she said, “if kids are parenting young, they don’t have their family push, left on there on devices it’s not a priority.” Mom12 went on to say that parents “may not be exposed to it so they don’t think it’s a problem, I think that’s major.”

Mom15 remarked, “I would say the way I was brought up, my father would not let us, so my stance and some others I know, it’s the way we were brought up.”

Table 4

Key Themes and Categories for Primary Research Question

Key themes	Categories	Selected extract
Busy, no time	Laziness	Mom7: “too busy”
	Scheduling	Dad1: “they don’t have the time, it’s not important, not the number one thing”
	Transportation	Mom10: “convenience, laziness, I'm being absolutely honest, ummmm, parents want convenience, also a combination of laziness and just it’s, it’s for myself”
		Mom14: “sometimes I don’t have time *laughs* to make an appointment to go there and get it done, that the hardest part”
		Mom5: “I would say scheduling, that it could be transportation and scheduling and staying organized if you have more than one kid”
Scared	Might hurt	Mom14**:** “they’re scared, or the parents themselves are scared”
	Concerned about cost	Mom14: “maybe the child is scared, or maybe the parents feel like the work their child may need might be a lot”
	Worried about care	Mom8: “it’s a stigma that going to the dentist is scary and it might hurt”

Research Subquestion 1

The first subquestion was as follows: Is lack of trust an issue for parents?

The key themes and categories for Subquestion 1 are presented in Table 5. The focus of this subquestion was the exploration of trust as a potential barrier to preventive

oral health program attendance. This subquestion was answered by participants from their perspective as parents. The themes and categories developed are supported by comments from the parent participants. The theme of this research question was; trust is an issue in the lack of attendance from children at the free preventive oral health program. Categories included the following: trust is not an issue, communication or language barrier, lack of education, unsure of the program's motive, and cultural issues relating to child participation. However, as Table 6 indicates, the results were mixed, as 10 out of 20 parent respondents suggested that lack of trust was not an issue while the other half suggested that it was.

Trust is not an issue. Half of the parent participants reported that trust was not an issue when deciding whether their child or children were attend a free oral health prevention program. For instance, Dad2 said, "no, trust would not be an issue." Mom8 remarked, "no, it's a benefit to the child, and parent, not to run around, and find someone." Dad1 expressed, "I would trust, I guess I would trust them, why wouldn't a parent." Mom5 stated, "no, no, I don't think so."

Communication or language barrier. Parent participants expressed concern when describing their feelings towards free preventive oral health programs for their children. For instance, Mom 3 said, she would be more open to "someone who speaks their language." Mom12 remarked, "communication is a barrier, no one speaks the language in the community, how will you bring awareness to a family if there's a communication and language barrier."

Lack of education. A couple of parents suggested that education or lack of

proper education was a reason they did not allow their child or children to attend an oral health program. Mom 15 said, “it was trust, and not getting myself educated, because I thought that it was interns, again going off stuff that I had heard, it was interns, and they didn’t know what they were doing.” Mom9 reported, “parents are not educated on it.”

Unsure of motive. A few parents reported they were unsure of the motive. This uncertainty led them to the decision to decline their child admission to the free oral health program. Mom9 said, “they think there’s a catch behind it.” Mom10 remarked, “right, and what’s the motive, what are they getting out of it, they don’t want to genuinely help us, when that’s the not the case all the time.” Mom6 reported, “I would have to meet them first just to know that person first before they start doing health questions.” Mom13 expressed, “I think it’s the trust of confidentiality, we live in a society where it has been broken a lot, so it’s more so anytime you hear you need to give social or private information, like, for instance, if that’s done, how do you show client or customer that, you know there’s a waiver that you signed off, to show its confidential info, or prove to them your information is secure.” Mom16 remarked, “if they never met the doctor before, they could be a little iffy about it.”

Cultural. A few parents reported reasons why they did not sign consent forms to oral health programs for their child or children, were cultural. For instance, Mom10 said, “someone I know, may not send her children, because she finds that people of color, treat people of color, I don’t want to say better, for a lack of words, I guess a little bit more attentive, that’s her experience, something that important to her go to someone.” Dad2 remarked, “culturally, no matter what race you are, pride is always an issue, I have to

share my personal information, there stereotyping the fact that there is something for free, depending on what neighborhood you're in, you know, and it's kind of a shame, that most African Americans, some people, may not go to that, like, if you put into a mixed neighborhood, it stupid, its really about pride, because it's like, we have this, and we have that, and that with all races honestly." Mom12 expressed, "like this is available, but like I said, if you have this, umm, that they can't get culture or group represented, to speak to the group, it would be an easier connection, we can do this, and have access to it. Like when a Caucasian comes into an all African American community people pull back, but if I see someone of my own, or Muslim relating to me, like if I don't understand the dynamics of certain cultures, how they're raised, and their own personal society, but when they see one of their own, they will be more open to receive." Mom15 voiced, "the stories that my father gave us, when he was doing his stuff, and I don't know if it's true or not, it was just my father's way, that they used to run test on us immigrants, and they didn't care about immigrants, and it was just a way of them to doing things, tests on us, before they gave them to the public, he really put that into our mind, like my brother still don't go to the doctor, and he's a grown man so."

Table 5

Table of Codes and Categories

Categories	Parent participants
Trust not an issue	10
Communication barrier/language	2
Lack of education	2
Unsure of motive	4
Cultural	4

Table 6

Is Trust an Issue for Not Participating in a Free Oral Health Program?

Parent participant	Yes	No
Mom 1		X
Mom 2		X
Mom 3	X	
Mom 4		X
Mom 5		X
Mom 6		X
Mom 7		X
Dad 1		X
Mom 8		X
Mom 9	X	
Mom 10	X	
Mom 11	X	
Mom 12	X	
Mom 13	X	
Mom 14	X	
Mom 15	X	
Mom 16	X	
Dad 2		X
Total	10	10

Table 7

Key Themes and Categories for Research subquestion 1

Key themes	Categories	Selected extract
Trust not an issue	Did it as a child	Mom7 & Dad1: "grew up in Japan and every year we would see a different dentist I think every year for me it's so natural"
	Recommended	Mom6: "I mean if it's like a dentist I don't know or not recommended maybe I would be a little bit more cautious"
	Benefit	Mom19: "Yes at least that's a reminder to because they check it and let me know to follow up with a dentist"
		Mom8: "it's a benefit to child and parent not to run around and find someone"
Trust is an issue	Communication/language barrier	Mom 3: "would be more open to someone who speaks their language"
	Lack of education	Mom12: "communication is a barrier, no one speaks the language in the community, how will you bring awareness to family if there's a communication and language barrier"
	Unsure of motive	Mom 15: "it was trust and not getting myself educated because I thought that it was interns again going off stuff that I had heard it was interns and they didn't know what they were doing"
	Cultural	Mom9: "parents are not educated on it"
		Mom9: "they think there's a catch behind it" Mom10: "what's the motive, what are they getting out of it, they don't want to genuinely help us when that's the not the case all the time"
		Mom6: "I would have to meet them first just to know that person first before they start doing health questions"
		Mom13: "I think it's the trust of confidentiality, we live in a society where it has been broken a lot, so it's more so anytime you hear you need to give social or private information"
		Mom16: "if they never met the doctor before they could be a little iffy about it"
		Mom10: "someone I know may not send her children because she finds that people of color treat people of color I don't want to say better for a lack of words I guess a little bit more attentive that's her experience, something that important to her go to someone"
		Dad2: "culturally no matter what race you are pride is always an issue I have to share my personal information there stereotyping the fact that there is something for free depending on what neighborhood you're in you know and it's kind of a shame that most African Americans some people may not go to that like if you put into a mixed neighborhood it stupid its really about pride because it's like we have this and we have that and that with all races honestly"
		Mom12: "like this is available but like I said if you have this umm that they can't get culture or group represented to speak to the group it would be an easier connection we can do this and have access to it"

Research Subquestion 2

The second subquestion was the following: Are cultural issues perceived as a barrier?

The key codes and categories for Subquestion 2 are presented in Table 8. This question focused on ethnicity in relation to feelings that parents expressed about being a patient, experiences with their children, or previous experiences with family members. The subquestion was asked of all parent participants. Comments from parent participants supported the themes and categories. Again, a few remarks were mixed; Asian parents felt that it was natural to see whichever dental professional was available regardless of culture, whereas parents of other cultures did not feel as comfortable with this. Table 9 presents key themes and categories for Subquestion 2.

Comfortable with their own culture. Parent participants reported feeling more comfortable escorting their children to free preventive programs when they identified with oral health professionals from their own culture. For instance, Mom3 said, “I guess in Chinatown they probably want to stick with someone who speaks their language.” Mom11 reported, that when she “seen someone up there from their ethnic background and she felt more comfortable.” Mom12 expressed, “when these free oral health programs can get culture or ethnic groups represented to speak to the group it would be an easier connection for the community.”

Cultures’ health-seeking behavior. Parents reported that in certain cultures, preventive oral health care is not important. In fact, Mom12 said, “minorities if it’s not bad don’t worry, out of sight out of mind, if it’s not bad no worries, we respond to

emergency situation instead of prevention." Mom13 remarked, "it's kind of a shame, that most African Americans, some people, may not go to that, like, if you put into a mixed neighborhood, it stupid, it's really about pride."

Culture affected how they were raised.

Parent participants expressed how their family cultivated the way the used preventive oral health programs. For instance, Mom12 reported, "if I don't understand the dynamics of certain cultures, how they're raised, and their own personal society, I would not attend a program, but when they see one of their own, they will be more open to receive." Further, Mom15 reported, that her experiences from her childhood effects how she and her siblings attend preventive initiatives. Mom 15 went on to say, "what I went through with my father, it's sad to say, but most of the West Indians just feel like its a way for the government to find out information so my father was very not wanting us to do it. I still had that mindset, until I had my children, and until I got educated."

Culture not seen as a barrier. Most of the Asian parent's participants expressed how they felt culture was not, or should not, be considered a barrier to free oral health preventive services for children. In fact, for Mom7 and Dad1, reported "seeing a different dentist yearly for a screening, was part of a free oral health program in Japan." This was considered a natural process. Other parent participants, such as Mom5 said, "they should not have any restrictions. Mom8 was so surprised by the question, she reported, "can't think of any reason why they wouldn't take their children to the school." Mom10 said, that for most of her life "my dentist is Jewish, I'm African American, Native American.'

Mom10 went on to say, that she now “sees someone from her own culture and is very happy.”

Table 8

Table of Codes and Categories

Categories	Parent participants
Comfortable with own culture	4
Cultures’ health-seeking behavior	3
Affected how they were raised	3
Culture not seen not a barrier	6

Table 9

Key Themes and Categories for Research Subquestion 2

Key themes	Categories	Selected extract
Culture as a barrier	Comfortable with own	Mom3: "I guess in Chinatown they probably want to stick with someone who speaks their language" Mom11: "seen someone up there from their ethnic background and felt more comfortable" Mom12: "that they can't get culture or group represented to speak to the group it would be an easier connection we can do this and have access to it, like when a Caucasian comes into an all African American community people pull back" Mom12: "minorities may feel like if it's not precedence I not their own family if it's not bad don't worry, out of sight out of mind, if it's not bad, no worries we respond to emergency situation instead of prevention" Mom13: "the fact that there is something for free depending on what neighborhood you're in you know and it's kind of a shame that most African Americans some people may not go to that like if you put into a mixed neighborhood it stupid it's really about pride" Mom12: "if I don't understand the dynamics of certain cultures how they're raised and their own personal society but when they see one of their own they will be more open to receive"
	How they were raised	Mom15: "I would say the way I was brought up my father would not let us so my stance and some others I know it's the way we were brought up"
Culture not a barrier	Not an issue	Mom5: "They should not have any restrictions" Mom8: "can't think of any reason why they wouldn't take their children to the school" Mom10: "my dentist is Jewish I'm African American Native American" Mom15: "for my case no"

Research Subquestion 3

The third subquestion was the following: How can free preventive dental care programs more efficiently reach children?

The key codes and categories for research question 4 are presented in Table 10. This question focuses on various ways parent participants expressed how to improve child attendance at free preventive oral health programs. The research question was asked to all parent participants. Comments from parent participants support the themes and categories. Parents were very vocal in describing improvements towards child and parent turnout. Table 11 presents key themes and categories for Subquestion 3.

Advertise more.

Parent participants reported that they did not receive enough flyers or handouts from the program's advertising when dental professionals would be visiting the children's school. For instance, Mom2 said, "wasn't always aware of when they were coming, only when they give us information." Mom8 reported, "they don't advertise it as much." Mom15 responded, "I just wish the schools took more time to speak to the parents, I think that's what is it mostly." Mom12 expressed, "a lack of information really parents might not be aware of what's available."

Notices in my language.

Parent participants reported that when they first came to the country they could not read the notices, or consent forms, their children took home. They expressed frustration, and what they did with them. Mom15 said, "they would send a paper, and we used to throw it away, we didn't even look at it, we can't read the paper, and some of us can't read it."

Mom10 responded, “I could not read the language, I did not let my son attend, I regret that.”

Send reminders.

A portion of lack of child attendance, is related to the child not showing up. One of the parent participants suggested how to send better reminders, in order to decrease failed appointments. Mom13 reported, “you know what’s a good idea, sending reminders out, the texting, that helps, even though I have a phone, tech savvy text messages help better than the emails, and better than voicemail.” Mom 13 went on to say, “as a parent, when do we have time to sit down and read all of our emails at the end of the day, and to read all of them no.”

Table 10

Table of Codes and Categories

Categories	Parent participants
Advertise more	4
Notices in my language	3
Send reminders	**3**

Table 11

Key Themes and Categories for Research Subquestion 3

Key themes	Categories	Selected extract
Unaware of program	Advertise more	Mom2: "only when they give us information"
		Mom8: "they don't advertise it as much"
		Mom13: "sometimes when it is so public people tend not to but when it's a little bit private they do attend sometimes you catch those people that won't normally attend"
	Notices or consent forms in my language	Mom10: "I could not read the language"
		Mom9: "there's a waiver that you signed off to show its confidential info or prove to them you information is secure"
		Mom15: "I just wish the schools took more time to speak to the parents I think that's what is it mostly"
	Send reminder	Mom12: "a lack of information really parents might not be aware of what's available"
		Mom15: "they would send a paper and we used to throw it away we didn't even look at it we can't read the paper and some of us can't read it"
		Mom13: "you know what's a good idea sending reminders out the texting that helps even though I have a phone tech savvy text messages help better than the emaid better than voicemail as a parent when do we have time to sit down and read our emails at the end of the day and to read all of them no"

Research Subquestion 4

The fourth subquestion was the following: What are the real-life perceptions of these programs by parents?

The key codes and categories for Subquestion 4 are presented in Table 12. This question focuses on any perceived real-life barriers that might prevent a parent from allowing their child or children to attend a free oral health program. The research question was asked to all parent participants. Comments from parent participants support the themes and categories. Parents were detailed in describing what they felt was a real-life issue for non-attendance in these programs. Table 13 presents key themes and categories for Subquestion 4.

All parent participants reported that these free preventive programs are great for children. Their own experiences as a child have been mixed as one would assume. Most parents indicated that they learned about improving their dental health through school. Location, transportation, and cost, are consistent themes as barriers.

Table 12

Table of Codes and Categories

Categories	Parent participants
Location	4
Transportation	3
Cost	3

Table 13

Key Themes and Categories for Research Subquestion 4

Key themes	Categories	Selected extract
Location	Distance to event	Mom12: "I think the location of where they're having it, you know, like, a free resource, we having this program, but commute is great, or size of family they may not have the resources to take the whole group over there, and then child care might be a factor, need someone to watch kid, lots of other variables, its secondary but a factor of locale"
Transportation	How will I get there?	
Cost	Bus, train, childcare	Mom10: "have to pay for self and children"
		Mom6: "the cost"
		Mom9: "they don't have no funds"

Table 14

Average Experiences for Parent Participant Responses

	Negative	Positive
Their experiences as a child	10	10
Learned about oral health in school	15	05
Learned about oral health from family	05	15
Their children's experience is better	20	0
Experiences with Medicaid	14	06
Believe dental problems are as serious as other health problems	19	01

Research Subquestion 5

The fifth subquestion was the following: What other life events prevent children from attending?

The key codes and categories for Subquestion 5 are presented in Table 15. This question focuses on any other life events that may prevent a parent from allowing their child or children to attend a free oral health program. The research question was asked to

all parent participants. The themes and categories are supported by comments from parent participants. Parents were detailed in describing what they felt was a real -life event that might present for non-attendance in these programs. Table 16 presents key themes and categories for Subquestion 5.

Some parent participants reported that scheduling was a potential issue for not signing parental consent forms. Scheduling and getting to the event, were described as being hard. Some parents reported that they feared pain. Parents also indicated that either they or their child was afraid of pain. One Mom said, it was a stigma, that going to the dentist is scary, and it might hurt. Once again, cost was an issue. Mom6 said, “the cost, and also sometime, if they got some work done on the teeth that was difficult or painful, they don’t want to go back.”

Table 15

Table of Codes and Categories

Categories	Parent participants
Hard to schedule	4
Scared	3
Cost	3

Table 16

Key Themes and Categories for Research Subquestion 5

Key themes	Categories	Selected extract
Schedule	Difficulties making appointment	Mom16: "no time to take them" Mom13: "I would say scheduling and staying organized if you have more than one kid to make an appointment to go there and get it done that the hardest part" Mom5: "to make an appointment to go there and get it done that the hardest part" Mom2: "hard to schedule"
Scared	Painful, fear of unknown	Mom3: "it's a stigma that going to the dentist is scary and it might hurt" Mom8: "maybe the child is scared" Mom14: "they're scared or the parents themselves are scared"
Cost	Worried about money	Mom2: "I don't have insurance I don't care I wouldn't go as much it's just costly" Mom 8: "health insurance doesn't cover the expenses for it" Mom12: "if they don't have the finances and have to pay out of pocket might be a hindrance, if finances are kind of tight" Mom6: "the cost, and also sometime if they got some work done on the teeth that was difficult or painful they don't want to go back"

Research Subquestion 6

The sixth subquestion was the following: What is the parents' perception of preventive dental care?

The key codes and categories for Subquestion 6 are presented in Table 17. This question focused on the parent's perception of preventive dental care. The questions were asked specifically to understand parents' experiences as children as well as their perception of preventive dental services for their children. The research question was asked of all parent participants. Comments from parent participants supported the themes and categories. Parents spoke freely and were detailed in describing their personal dental experience and that of their children. Table 18 presents key themes and categories for Subquestion 6. All 20 parent participants reported, "dental problems are as serious as other health problems."

Table 17

Table of Codes and Categories

Categories	**Parent participants**
Negative experiences as a child	4
Parents aware of consequences	9
Children are unaware of consequences	10

Table 18

Key Themes and Categories for Research Subquestion 6

Key themes	Categories	Selected extract
Negative experiences as a child	Traumatizing	Mom3: "I don't have the best care when I was a kid they don't say what's going to happen before it happens they do things and so it's a little bit traumatizing" Mom15: "for me it was difficult but for my kids it was easy" Dad2: "never went to dentist as a child"
Parents aware of consequences	Make appointments, take them to the dentist regularly	Mom6: "taking them and making appointments on a regular basis" Mom3: "bring them to a dentist every 6 months" Mom2: "prevent them from eating more too much candy sweets are not too good once in a while its ok"
Children are unaware of consequences	No idea, don't realize importance	Mom13: "some are and some aren't I think the younger generation is becoming more aware I think it's more so like rather they are aware of it but do they practice it" Mom3: "I don't think they realize that to get rid of how important it is to have clean teeth before they go to sleep" Mom6: "no I don't think they know that's why it important to take them"

Research Subquestion 7

The seventh subquestion was the following: How was the parent's dental care addressed as a child?

The key codes and categories for Subquestion 7 are presented in Table 19. This

question focuses on how the parent's dental care was addressed as a child. The research question was asked to all parent participants. Comments from parent participants supported the themes and categories. Parents were detailed in describing their dental experiences as a child. Table 20 presents key themes and categories for Subquestion 7.

Some parent participants reported never visiting a dentist as a child. Others reported traumatizing experiences. Mom3 said, "when I was a kid they don't say what's going to happen before it happens, they do things, so it's a little bit traumatizing."

Most parents expressed that not having dental insurance would be a barrier to care. For instance, Mom2 indicated, "I don't have insurance I don't care I wouldn't go." Parents reported that the way they learned to take care of their teeth was at school. In fact, Mom15 responded, "when I was growing up it was from school not from my parents."

Table 19

Table of Codes and Categories

Categories	Parent participants
Never taught at home	5
Would not go without insurance	9

Table 20

Key Themes and Categories for Research Subquestion 7

Key themes	Categories	Selected extract
Never taught at home	Oral health education	Mom1: "my dentist first of all then school" Mom15: "when I was growing up it was from school not from my parents" Dad2: "health class in school"
Would not go without insurance	Infrequent dental visits	Mom11: "I don't that often because I might have been I might be not having insurance I would be embarrassed that somebody is not going take me without it" Mom12: "it's just that the information is not really out there where people would be more accessible or more exposed to it" Mom2: "I don't have insurance I don't care I wouldn't go"

Summary

In Chapter 4, the results of this study were presented. The results presented are associated with the research question and subquestions. To answer the primary research question, parent participants were asked what perceived barriers would prevent a parent from having their child attend a free preventive dental care program. The themes associated with this research question were a lack of time and scared. To answer the first subquestion, parent participants were asked; is the lack of trust an issue for parents. The theme associated with this research question was divided, as half of the parents reported that trust was an issue; while the other half reported a non-issue. To answer the second

subquestion, parent participants were asked if cultural issues were perceived as a barrier. The themes associated with this research question was either culture was an issue or it was not. Asian parent participants felt comfortable seeing whoever was available, regardless of the ethnic background, while other cultures do not feel as satisfied. To answer the third subquestion, parent participants were asked how can free preventive dental care programs more efficiently reach children. The theme associated with this research question were unaware of the program, and advertise more effectively. To answer the fourth subquestion, parent participants were asked what are the real-life perceptions of these programs by parents. The themes associated with this research question were location, transportation, and cost. To answer the fifth subquestion, parent participants were asked what other life events prevent children from attending. The themes associated with this research question were challenges in scheduling appointments, scared, and cost. To answer the sixth subquestion, parent participants were asked what is the parent's perception of preventive dental care. The themes associated with this research question were negative parental experiences as a child, parent's awareness of dental periodicity, and children unaware of the consequences of poor oral hygiene. To answer the seventh subquestion, parent participants were asked how was the parent's dental care was addressed as a child. The themes associated with this research question were, never taught how to take care of their teeth at home, and they would not frequent, or journey to the dentist without dental insurance.

The discussion of the results described in this chapter, recommendations, and conclusions will be presented in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

A qualitative case study design was used to explore the oral health perceptions and dental care behaviors of parents with children aged 5-15 years in underperforming Title I, New York City, elementary schools. The purpose of the research was to illuminate and apprehend the unique problem of low preventive dental care program attendance and to understand perceived parental barriers to the use of such programs. Recognizing the numerous oral health perspectives of parents regarding their children enabled awareness of parental refusal of preventive care, which may, in turn, help in identifying the social, economic, and policy implications of oral health decision making.

Key Findings of the Study

Nine themes emerged from the data relating to perceived parental barriers to free oral health programs. Of those initial nine, repetition was found in six of the themes: too busy/scheduling, scared, cultural differences/immigrants, trust, cost, and lack of insurance.

The first theme, “too busy,” captured the way that some parents described potential reasons for not escorting their children to preventive oral health programs. Parents said they just “didn’t have time.” Parents also described either “scheduling an appointment or keeping a scheduled appointment” as a challenge in attending oral health services.

The second theme, “scared,” captured a way that parents described either their feelings about going to the dentist or how they thought the children would feel about receiving dental care or attending an oral health program.

The third theme, “cultural differences,” related to cultural influences on preventive health care decision making, how cultural dissimilarities weighed decisions on how parents chose oral health providers, and why parents decide not to seek preventive services. Lack of trust emerged as parents expressed concerns over dental professionals not speaking their language, or not looking the way, they did. Parents were hesitant to attend a program where their “ethnic background was not represented.”

The fourth theme, “unaware of the program,” involved how parents reported lack of knowledge about a free preventive program for their children. The fifth and sixth themes were related to cost and money. “Costly” was how parents described how money was a concern in relation to dental care. Cost and money influenced decisions regarding transportation and childcare, as well as the way parents felt about dental care.

The seventh theme, “negative experiences or traumatizing as a child, “related to how some parents described receiving dental care as children.

The eighth theme, “lack of dental insurance,” was expressed as a barrier to dental care visits. Most parents expressed that they “would not go to the dentist without dental insurance.”

Themes and categories from each of the eight research questions can be narrowed down to the following: time, money, scared, cultural differences/lack of trust, and lack of insurance as potential parental barriers to preventive oral health programs. Time,

money/cost, scared/fear, and lack of insurance are themes that have been reported in numerous previous studies. Themes of culture and trust are contemporary concepts.

Culture and Trust

One of the original themes to emerge from this study is cultural issues and trust. For instance, parents reported that they "probably wanted to stick with someone who spoke their language" (Mom3). If they saw someone who "resembled themselves or had a more familiar face and communication, and values, an individual with high esteem, or seen as a leader, parents were more willing to attend" (Mom11). One parent participant questioned the motives of others who were not of the same culture, wondering, "what's the motive, what are they getting out of it, they don't want to genuinely help us when that's the not the case all the time" (Mom10). This statement indicates trust issues; moreover, the parent participant stated that she might not send her children because she had found that "people of color treat people of color—I don't want to say better, for a lack of words, I guess a little bit more attentive, that's her experience, something that important to her to go to someone" (Mom10). Parents openly responded that trust and cultural history were issues for them. Mom15 explained, "it was trust and not getting myself educated because I thought that it was interns again going off stuff that I had heard, it was interns and they didn't know what they were doing." She reflected,

> The stories that my father gave us when he was doing his stuff, and I don't know if it's true or not, it was just my father's way that they used to run test on us immigrants and they didn't care about immigrants, and it was just a way of them to doing things, tests on us before they gave them to the public. (Mom15)

Parents described “lack of trust and of confidentiality,” remarking that “we live in a society where it has been broken a lot” (Mom13). Parents also suggested that

> no matter what race you are, pride is always an issue; I have to to share my personal information their stereotyping the fact that there is something for free depending on what neighborhood you’re in, you know, and it’s kind of a shame that most African Americans, some people may not go to that, like if you put into a mixed neighborhood, it stupid, it’s really about pride because it’s like we have this, and we have that, and that with all races honestly. (Mom13)

Unaware of the Program

Another interesting concept arose during the interview regarding ways that oral health programs can effectively reach parents. This question may have never been asked before. Parents were more than willing to share insights into ways that these programs can attract parents and convince them to keep scheduled appointments. For instance, parents made the following comments: “we are not notified, only when they give us information” (Mom2); “they don’t advertise it as much” (Mom8); “I just wish the schools took more time to speak to the parents; I think that’s what is it, mostly” (Mom12); “a lack of information, really; parents might not be aware of what’s available” (Mom15). Some parents discussed language barriers: “I could not read the language” (Mom10); “they would send a paper, and we used to throw it away; we didn’t even look at it, we can’t read the paper, and some of us can’t read it” (Mom15). Mom19 mentioned a “waiver that you signed off to show its confidential info or prove to them your information is secure.” Other participants suggested ways to send reminders:

> what's a good idea, sending reminders out, the texting, that helps, even though I have a phone, tech-savvy text messages help better than the emails and better than voicemail. As a parent, when do we have time to sit down and read our emails at the end of the day, and to read all of them, no. (Mom13)

Interpretation of the Findings

This study confirms themes of time, cost, lack of insurance, and fear that were found in previous studies (Baldani, 2011; Chi, 2014; Kelly, 2005; Rahbari & Gold, 2015; Wallace & MacEntee, 2011). Additionally, it highlights new themes, such as lack of trust and cultural differences (Baldani, 2011; Rahbari & Gold, 2015). It also confirms that cultural sensitivity and trust in dental professionals are still lacking (Divaris et al., 2014; Kierce et al., 2016). It also confirms that encouraging, supporting, and educating caregivers on oral health care are integral to improving children's oral health (Divaris et al., 2014; Kierce et al., 2016). Further, it confirms that cultural compatibility and sensitivity are needed in public health areas (Wallace & MacEntee, 2012).

In a similar study by Kelly et al. (2005), parents who did not take their children for preventive oral care were not aware of the consequences of poor oral health. This study disconfirms Kelly et al. (2005), in that all parent participants responded that they were aware of the consequences of poor oral health. In fact, all 20 parent participants indicated an understanding that dental problems are just as serious as other health concerns. A limitation of the Kelly et al. (2005), study was the lack of diversity in participants. The current study represents a more diverse group of parent participants. Guarnizo-Herrano and Wehby (2012), and Askelson et al. (2015), suggested that there

was limited evidence-based knowledge regarding how parental influence affects preventive dental-care-seeking behavior for children. This study adds to the knowledge base by highlighting that “minorities may feel like if it’s not precedence, it’s not their own family, if it’s not bad, dont worry, out of sight, out of mind, if it’s not bad, no worries; we respond to emergency situation instead of prevention” (Mom12).

Baldani et al. (2011), suggested that cultural beliefs and perceptions regarding oral health are important individual barriers. This study confirms Baldani et al., in that parental belief systems can positively and negatively influence ways that parents seek free preventive care. Rahbari and Gold (2015), in a pilot study found that mothers’ oral hygiene habits and frequency of dental visits related to the oral hygiene habits and frequency of dental visits of their toddlers. This study disconfirms Rahbari and Gold (2015), because parents in this study often did not have dental care as children yet reported they wanted to take their children to the dentist. Additionally, parents often reported that they had learned about dental care through school or from their dentist, not from their parents.

Theories

This study incorporated behavioral change theories such as that of Prochaska and DiClemente (1983) and the TTM of behavioral change, as well as Bandura’s (1986) SCT, which indicates that self-efficacy is the belief that changes in behavior will result in positive outcomes (Jones et al., 2014). If the threat of dental caries is high and the severity of pain or dental disease higher, people tend to adopt behavioral change (Jamieson, 2014). This study confirms that the perceived threat of dental disease was not

high in parents; therefore, behavior change such as signing a consent form for a free prevention program for their child or children was not likely during the time of the study. Both stages of change constructs were associated with poor self-rated oral health and oral health impairment. This study confirms that poor self-rated oral health is related to both non ideal dental visiting patterns and higher levels of dental disease experience (Jamieson, 2014). SCT explains how parents observe, imitate, and learn health care behaviors based upon social surroundings in the neighborhood. It can be confirmed with responses in this study indicating that parents seek preventive care from a "referral, someone a friend recommends, word of mouth." Asking people such as friends, family, and neighbors for referrals is critically important, and "referrals says a lot." Using SCT helped to explain how the interaction between the environment and self affects parental behaviors. Parents tend to imitate and follow those they look up to and resemble.

Limitations of the Study

One of the biggest limitations of this study was the discussion of personal information, such as the oral and dental care habits of parents and their children. There was the possibility of inaccurate reporting of perceived barriers by parents on the open-ended questionnaire. During the interviews, parents decided what they wanted to share. Most parents said that they would allow their children to attend a preventive oral health program; however, there was no proof that this was true. In fact, the nurse/health manager at the school suggested that out of 300 parents, only 30 signed the consent form. This tied into the arousal of response bias among the parents in the sample, such as the tendency to agree with positive statements, supply limited responses, or respond in ways

that were thought to be socially desirable or culturally appropriate. Another limitation of the study may have been the divulgence of incorrect personal information on the sociodemographic questionnaire or consent form. However, most parents in this study were honest about their age and ethnicity. The final potential limitation was researcher bias; however, this was minimized through triangulation of data whereby one other researcher reviewed and analyzed the data.

Recommendations

A major finding in this study was how culture and ethnicity contributed to whether or not parents allowed their children to attend an oral health program. In future research, culture and ethnicity should be further investigated. Additionally, in future studies, cultural elements such as familial history, language, immigration status, and the changing demographics of neighborhoods should be assessed before initiating a preventive oral health program. There continues to be a need to explore qualitative data on maternal attitudes and behavior in relation to maternal or caregiver preventive health seeking (Guarnizo-Herrano & Wehby, 2012). Because this study addressed multiple ethnicities, it is interesting to note that the majority of Black parents expressed a lack of trust in free preventive oral health services when compared to their Asian counterparts, who were exposed to these services as children. Perhaps future research can attempt to replicate findings to see if early exposure as children and increased attendance can be generalized or explored further. If Black parents are “skeptical of who’s” running oral health initiatives, perhaps there is a need to incorporate more leaders and dental professionals from the neighborhood to increase child attendance.

Social phenomena such as facial recognition of leaders as well as referrals and recommendations of providers and health services play a part in how members of certain cultures seek preventive oral health care. Parents identified “referrals, recommendations, and recognition of community leaders” as ways to encourage parental consent. More research is needed to better understand how interactions in social networks relate to how parents seek preventive oral health services (Chi, 2014; Valenti, Palinkas, Czaja, Chu, & Brown, 2016). Future research is needed for developing multidisciplinary designs to understand the social and behavioral phenomena related to parents or caregivers’ denial of preventive care to help caregivers make optimal preventive care decisions for their children (Chi, 2014). Parents expressed a lack of preventive education and an “out of sight, out of mind mindset.”

Parents also mentioned that they “were not educated enough” to understand the importance of oral health interventions. Dodd et al. (2014) suggested that changing current perceptions of preventive oral health care so that it is seen as a necessity rather than a luxury will require multiple educational interventions. Future research should include the addition of educational intervention for parents to ascertain whether perceptions change.

Implications

In promoting increased rates of children attending free preventive oral health programs, this study may help the nation achieve its goal of 50% reduction in dental caries in children by 2020 (Office of Disease Prevention and Health Promotion, 2017). A reduction in caries can first be attained by educating children on prevention and proper

oral hygiene, such as brushing twice daily with fluoride toothpaste and having fluoride varnish applied to teeth to protect them from dental caries. Children can take this learned information home and help to educate and change the oral health habits of their parents. For instance, children often read the handouts that are sent into their households from dental professionals; as one participant remarked, “my daughter reads everything to me” (Mom15).

Some common social and behavioral issues arose, such as “skepticism of these programs” and a “lack of trust from those that are not educated” or “immigrants from another country.” This knowledge could enable universities, colleges, and professional organizations to tailor strategies such as using dental professionals who “match ethnically” with clients or are “leaders in the community” to talk with parents in order to raise the number of children benefiting from preventive dental services (Mom11). Trying alternative measures such as “taking more time to speak with parents” (Mom15), learning about the culture, and languages spoken in the community beforehand can be beneficial to increasing program sustainability. Additionally, by showing “passion and love for the community” (Mom11), and demonstrating that they “genuinely want to help” (Mom10) may increase parental acceptance.

On the community level, and nationally, poor oral health issues contribute to more than 51 million lost work and school hours (Devlin & Henshaw, 2011; Jackson et al., 2011; New York State Department of Health, 2017; NIH, 2014). Parents expressed unawareness of free preventive programs. Parents also made suggestions such as “sending out more flyers or more media.” Parents suggested that programs “send out

more posters … send more home to parents, a way to send out more information …, spread the word more" (Mom14). Making more people aware of the program might enable the community to become stronger in its struggle to increase acceptance of quality preventive dental care programs for children.

Conclusion

Oral health has a significant impact on the overall health and well-being of individuals and the nation (Devlin, 2011; NIH, 2014). Poor oral health leads to illnesses that affect and restrict one's ability to work, learn in school, function at home, and diminishes the quality of life (Healthy People, 2010; Jackson, 2011; NIH, 2014; Kierce et al., 2016). Dental caries is a preventable disease. However, 42% of children aged 2 through 11 years old have had dental caries in their primary (baby) teeth. Additionally, 21 % of children have distressing untreated caries in their permanent (adult) teeth (NIDCR, 2014). A disproportionate number of dental caries can be found in certain low socioeconomic communities such as Black, Hispanic, and Mexican (CDC, 2015; Koppelman & Cohen, 2016). Reducing oral health disparities in children has been on the agenda of the US Department of Health and Human Services (HHS), dental universities, colleges, and professional dental associations through initiatives such as Healthy People 2010, 2020, 2030, and free preventive oral health programs (Adesanya, Bailey, Belcher, Beltran, Branch, Brand, Craft, Donohue, Dye, Thorton-Evans, Garcia, Hyman, Joskow, Lester, Makrides, Manksi, Mehegan, Mouden, Nelson, Norris, O'Hara, Cherry-Peppers, Ricks, & Rollins, 2016).

Parents or caregivers should understand the consequences for not taking their children to the dentist or a free preventive oral health program. This research shows they still do not. Parents are not receiving the information they need to educate themselves on the necessity for dental care for their children. In this study, parental concepts such as the lack of trust and cultural dissimilarities emerged as themes, as did themes of; money, fear, lack of insurance, unaware of program, transportation, time, and location/access to care.

These findings illustrate the need for dental professionals to be from the community. Dental professionals need to physically resemble the individuals found in the neighborhood, or at least have a passion for enabling change. These oral health providers can be recognized leaders, or come from referrals, which will enhance and encourage trust, and program sustainability. Dental universities, colleges, and professional organizations, need to find more creative ways to educate parents on the importance of children's oral health.

Untreated dental caries is painful. Children often do not have a voice or choice in seeking preventive care. Identifying parental refusal of preventive care can help socially, economically, and with policy implications towards positive oral health decision-making for children.

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Appendix A: Observation Checklist

Observation Checklist

Participant: Setting:
Time: Date:

Observation

Interpretation

Random Thoughts

Appendix B: Interview Questionnaire

Interview Questionnaire

Participant#: Age: Setting:
# of Children: Parent or Caregiver Time:
Gender:
Education: Date:

1.Why should children go to the dentist?
2. What problems could your children have if they do not receive regular dental care?
3. Are you or your children aware of the consequences of not caring for their teeth?
4. What can a parent do to maintain a child's good teeth?
5. How often should children go to the dentist?
6. With no insurance, how often would you go to the dentist?
7. Where do you learn about dental care?

8. What are some reasons people might not take their children to the dentist or a preventive oral health program?
9. Are dental problems as serious as other health problems?
10. How have you felt about the dental care you have received? Did you go to the dentist as a child?
11. How have you felt about the dental care you have received?
12. What dental services does Medicaid cover for children?
13. What are your experiences with dentists who accept Medicaid for your children?
14. What are somethings that might make it difficult to get your children to the dentist or a preventive oral health program?
15. What can a parent do to maintain a child's good teeth?
16. How do you go about finding a dentist for your children? Locating

a dentist who takes Medicaid for your children?
17. Do you receive any support or guidance from family or friends who help you get dental care for your children? Do you typically ask family or friends about who to see for dental care? Who they recommend or not?
18. Are there any cultural or racial concerns/reasons why a parent or caregiver would not have their child/children attend a preventive care program?
19. Do you think dental professionals treat people differently on the basis of their race, ability to pay, or type of insurance?
20. Are you aware of school-based dental programs? Free preventive programs? How acceptable do you find these programs?
21. Do you know what a dental sealant is? Do you know how to prevent cavities in your children's teeth? Do you know what fluoride is?
22. Since you have never taken your child to a preventive oral health program, is lack of trust an issue?

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