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Exploring the Risk Factors that Influence the Parental Dental Deferment Decision

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This is to certify that the doctoral dissertation by

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2015

Abstract

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by

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of the Requirements for the Degree of

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Abstract

When caregivers defer their personal routine dental care (RDC) in order to provide RDC for their children, they risk detrimental consequences in their personal health and the health of their children. The purpose of this qualitative case study was to identify the risk factors that led to the parental dental deferment decision. The oral health and personal care services conceptual models guided the development of the research questions, facilitated the selection of risk factors on the decision-making process, and provided the basis for the data analysis thematic categories. Ten caregivers who made the decision to defer their personal RDC for the sake of their children's RDC participated in the study. Interviews were transcribed verbatim and analyzed thematically. According to the results of the study, the oral health beliefs of caregivers shaped their decision to seek RDC for their children while financial barriers, dental fear, and distrust obstructed their capacity to seek RDC for themselves. Caregivers placed a higher priority on their children's wellbeing—including dental care—than on their own health, despite knowing the association between poor oral health and serious health conditions. These findings indicated, for caregivers, deferring personal RDC was not a lack of desire, education, or care but striving for constant balance between affordability and providing their children with every healthy opportunity in life. The positive social change implications of this study include increasing the proportion of adults receiving RDC yearly through development of targeted interventions that increase caregivers' access to and utilization of dental care services. Such efforts would support the strategies implemented to achieve Healthy People 2020 objectives.

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Dedication

This project is dedicated to my family and friends who embarked on this long, arduous journey with me; I may be the one receiving the degree, but you supported and encouraged me the entire way.

To my family: Thank you for putting up with my ‘appearance in spirit’ at family gatherings and singular focus on this one outcome.

And especially to my mom: Thank you for helping each and every time I needed to be first and most important because my panic threatened to spill over.

To Robyn: Thank you for being there every time I needed you. Thank you for the shoulder, the ear, and the kick in the pants and knowing which one of those options I needed at that moment. I could not have done this without you. And know that I will always be there for you, especially when you are sitting in driver’s seat of this crazy ride.

To Jocelyn and Gigi: Thank you for listening to me rant and rage and question when I just needed to get the words out. Thank you for offering alternative viewpoints I could not have envisioned.

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Chapter 1: Introduction to the Study

Introduction

One objective of Healthy People 2020 (U.S. Department of Health and Human Services HHS, 2011) is to increase the proportion of children, adolescents, and adults who have visited a dental office within the last 12 months. A recent report by the Institute of Medicine (IOM) and National Research Council (NRC, 2011) stated the lack of routine dental preventive care affects "a disproportionate number of vulnerable and underserved individuals" including the uninsured and the underinsured (p. 2). Medicaid and the Children's Health Insurance Program (CHIP) include provisions for routine dental care (RDC) for children up to 19 years old (IOM & NRC, 2011). Unfortunately, low reimbursement rates preclude many dentists from accepting children with Medicaid benefits, forcing many caregivers to pay out of pocket for their child's RDC (Fisher-Owens et al., 2007; Grembowski, Spiekerman, & Milgrom, 2007). Furthermore, lingering economic decline results in reductions in state-sponsored low-cost dental services for adults (IOM, 2011). Caregivers are now pressed to choose between their children's RDC and their own, leaving many caregivers opting to sacrifice their own oral health in order to provide routine dental care for their children (Frazier, Jenny, & Bagramian, 1974).

In an effort to fill the void in the literature related to this subgroup of the population, my study sought to identify the risk factors that led to the parental dental deferment (PDD) decision. Identification of these risk factors may enable the development of targeted interventions that increase access to dental services for caregivers and reduce oral health disparities within the population. These identified risk factors could also indicate where structural and institutional changes are needed which could be targeted by policy amendments or funding realignment. Low cost adult dental services or family dental insurance plans, increased Medicaid reimbursement for dental services, and reductions in structural barriers to regular dental preventive care (office hours, child care, and transportation, among others) are examples of practical strategies that could be employed if the identified risk factors indicated modifications in those determinants would improve parental access to RDC.

Improving access to routine dental preventive care for caregivers achieves one of the Healthy People 2020 objectives for oral health (HHS, 2011). Increasing access to dental services will not only improve the oral health status of caregivers, but could positively impact caregivers' overall health status (HHS, 2000; IOM, 2011; IOM & NRC, 2011). Healthy caregivers minimize health care expenditures for the family and community through reduced out-of-pocket medical fees and unnecessary utilization of emergency services (IOM & NRC, 2011). Therefore, the results of my research could make a significant contribution to the field of public health resulting in a positive social change in the oral health status, as well as the overall health status, of adults, children, and communities.

This chapter aims to briefly illuminate the paucity of information on the PDD issue through the illustration of the gap in the literature. I will examine the topic in depth in Chapter 2. In Chapter 1, I will also describe the objective and organization of this project, concluding with the potential contribution this project could make in the reduction of oral health disparities.

Background

Regular dental preventive care is a vital component of good overall health. Unfortunately, access to regular dental preventive care is lacking for many people in the United States (IOM, 2011). Several studies assessed barriers to RDC but primarily focused on access issues for either children or adults with unknown caregiving status. A study by Mofidi, Rozier, and King (2002) illuminated several barriers to obtaining dental care for Medicaid-insured children as perceived by their caregivers. Outside of economic issues, the researchers found structural, environmental, and interpersonal barriers impacted the caregivers' ability to procure dental care for their children (Mofidi et al., 2002). However, Mofidi et al. did not address the quandary of whether barriers to obtaining children's RDC affected the caregivers' acquisition of personal RDC. Vujicic, Nasseh, and Wall (2013) analyzed 10 years of data from the Medical Expenditure Panel Survey (MEPS) and found dental service utilization has increased for children but decreased for adults; the researchers implied recent changes in public health care program benefits were responsible for the fluctuations in utilization rates (Vujicic et al., 2013). Research by Doty and Weech-Maldonado (2003) indicated race/ethnicity and insurance type influenced adult dental service utilization with insurance type moderating the dental service utilization rates among racial and ethnic minorities. Unfortunately, the presence, or absence, of children in the household was not factored into the analysis. Thus, it is unknown what effect, if any, the presence of children has on adult use of dental services. Kelly, Binkley, Neace, and Gale (2005) found similarities and differences in oral health beliefs and experiences of dental service utilizers and nonutilizers, which shaped how each group approached RDC for themselves and their children. Utilizers focused on preventing oral health disease while nonutilizers perceived oral health care only important in dental emergencies or for aesthetic reasons. Yet, respondents from both groups reported neglecting their personal oral health (Kelly et al., 2005).

The research on barriers to preventive oral health care is divided among two subgroups of the population—children and adults. These two groups can be further subdivided by demographics such as age, gender, race/ethnicity, and residence. Research also exists describing the relationship between dental service utilization and specific caregiver factors such as literacy level (Miller, Lee, DeWalt, & Vann, 2010) or language spoken at home (Flores & Tomany-Korman, 2008) as it relates to the child's dental health outcomes. Studies have indicated poor parental dental health is associated with poor dental health in children (Dye, Vargas, Lee, Magder, & Tinanoff, 2011; Isong et al., 2010). Yet, there is no research that explores the caregivers' sacrifice of their personal RDC for their child's dental health and the factors that lead to that decision. That is the gap my research study intended to fill.

To achieve the Healthy People 2020 oral health objectives set forth by the U.S. Department of Health and Human Services, public health researchers should uncouple *caregivers* from the broad designation of *adults* to determine the specific factors that influence the health care decision-making process as separate units in the family. Researchers and policymakers should not assume health care decisions made by single or married adults without children are influenced in the same manner with the same factors to the same degree as decisions made by caregivers. Nor should they assume health care decisions made by caregivers of young children are the same as health care decisions made by caregivers of adult family members. Competing priorities and the interaction of determinants affects the health care decision process differently within these subgroups and should be identified and explored as targets for health improvements.

Problem Statement

The decision to forgo personal RDC affects more than the caregiver's oral health status; the dental deferment decision also affects their physical health and the health of their children. The vertical transmission of the dental caries bacteria from the mother to the child is one of the primary sources of dental caries infections in children under 2 years of age (Grembowski et al., 2007). Research has also indicated a relationship between poor oral health and serious health concerns such as cardiovascular disease, stroke, and peripheral vascular disease (Dietrich, Sharma, Walter, Weston, & Beck, 2013; Friedewald et al., 2009; Lockhart et al., 2012). By sacrificing personal dental health to provide their children with RDC, caregivers could be exchanging one health issue for another, more serious one. With the relationship between poor oral health and serious health issues clearly delineated, determining why caregivers continue to sacrifice their personal RDC for their children's RDC becomes a critical concern in public health research. Unfortunately, PDD has been all but neglected in the literature, with researchers focusing on barriers to RDC for children and adults as two sides of a dichotomous category. Therefore, my research sought to identify the risk factors that led to this PDD as a separate subgroup of the *adult* category.

Purpose

The purpose of my study was to identify and explore the risk factors that led caregivers to sacrifice their personal dental health for the dental health of their children. As stated previously, researchers and policymakers should not assume the factors that influence health decisions of noncaregiving adults are the same as those that influence caregiving adults. The additional tension of caring for a child's wellbeing could pressure caregivers into deferring their own health and wellbeing for the child, affecting the oral health and overall physical health of both the caregiver and the child. I explored PDD, defined as the caregivers' decision to forgo their oral health for their children's oral health, through a qualitative case study approach.

Research Questions

The main research question was: How do Pinellas County caregivers make the decision to defer personal RDC in order to provide dental care for their children?

Subquestions were:

- What behavioral and environmental factors influence the PDD decision?
- What experiences lead participants to this decision to defer personal RDC?
- How do these factors impact the participants' perception of themselves as caregivers?
- What are the participants' perceptions of personal dental health in terms of overall health?
- What are the participants' perceptions of personal health (including dental) in terms of their child's health and wellbeing?

Conceptual Framework

The framework for my study was based on the oral health conceptual model developed by Fisher-Owens et al. (2007). This multilevel model is similar to the social ecological perspective in that it considers the interrelationships between intrapersonal, interpersonal, and societal levels of influence, but approaches health problems through an oral health lens. The broad scope of the Fisher-Owens et al. (2007) model expands the standard biomedical model to include the social and environmental influences from family, community, and society on a person's oral health. This model encompasses the genetic and biological factors, health behaviors, medical and dental care, structural environment, and sociocultural factors that shape oral health outcomes (Fisher-Owens et al., 2007). Using the Fisher-Owens et al. (2007) model to discover what factors, situations, and experiences converged to lead caregivers to forgo their personal RDC enabled me to consider the specific determinants of PDD from multiple levels of influence. Identification of oral health behavior determinants that lead to the PDD decision will result in more effective health promotion programming (National Cancer Institute, 2005), thereby reducing the number of caregivers who defer their personal RDC for their children's RDC.

A second conceptual model that was relevant to my study was the access to personal health care services model by Margolis, Carey, Lannon, Earp, and Leininger (1995). The Margolis et al. (1995) model incorporates barriers, health service utilization characteristics, and mediating factors (provider characteristics) as they influence health outcomes. Barriers include both financial and nonfinancial barriers such as structural and organizational characteristics, personal and cultural factors, and health behaviors that impact access to and utilization of health care services. Although financial barriers pose the largest problem to accessing RDC, additional barriers related to employer workday expectations, child care policies, and public transportation infrastructure can impact a caregiver's capacity to obtain personal dental services. Dental office employees' attitudes and demeanor can also have a positive or negative effect on the caregiver's pursuit of oral health services. However, without an understanding of how barriers, health service usage, and physician attributes influence health outcomes, oral health promotion programs cannot develop effective interventions to minimize or eliminate the identified barriers to adult RDC.

Combining the Fisher-Owens et al. (2007) multilevel approach model with the Margolis et al. (1995) health services access model provided a comprehensive framework that accounted for the myriad influences on oral health behavior and the barriers encountered when accessing dental health services. Linking directly to my study's research questions, the broad scope of determinants illustrated in the Fisher-Owens et al. (2007) model and the wide range of barriers and mediators outlined by the Margolis et al. (1995) model facilitated the identification of the risk factors that led to PDD, barriers that impeded RDC access, and protective factors that encouraged health care utilization. These potential outcomes will enable health promoters to target intervention entry points that are amenable to oral health promotions. Although only briefly touched upon here, in Chapter 2, I will cover in depth how I used the Fisher-Owens et al. (2007) model and the

Margolis et al. (1995) model to explore the factors that influenced RDC decisions and the barriers that impeded the caregivers' access to oral health services for themselves.

Nature of the Study

The nature of my project was a qualitative case study. The exploratory nature of qualitative research provided the opportunity to examine the PDD phenomenon through the words of those who experienced it. The case study approach was an appropriate method to explore the factors that influenced the caregivers' decision to defer personal RDC. According to Yin (2009), case studies provide researchers the opportunity to "retain the holistic and meaningful characteristics of real-life events" (p. 4). To explore the overlooked phenomenon of PDD, I needed an approach that allowed the participants to describe the influences and situations that led to their decision, despite the possibility that their decision could be detrimental to their health. One important aspect of utilizing the case study method hinges on the need to adequately define the boundaries of the case or unit of analysis (Patton, 2002; Yin, 2009). Crowe et al. (2011) asserted bounding the case means determining not only what constitutes the case, but what does not constitute a case. Bounding cases in time, setting, and context will limit the volume of data collected and enable researchers to do "justice" to each case (Patton, 2002, p. 449).

The aim of my PDD study was to collect data from caregivers who deferred their personal dental health for their children through face-to-face interviews. I used purposive sampling to select caregivers who had not obtained a regular preventive dental checkup within 12 months, but accessed RDC for their child at least once within 12 months. The interview questions were geared toward discovering the circumstances and conditions that preceded the caregivers' deferment decision and the obstacles they encountered in procuring dental services for themselves and their families. I recorded and transcribed interviews before uploading them into a qualitative computer software program for coding. A combination of *a priori* and emergent codes were used to establish themes, patterns, and associations within and between each participant. *A priori* categories were selected from reviewed literature and conceptual models and supplemented by categories that emerged from the data. I will delineate the particular procedures I employed in this case study in Chapter 3.

Definitions

Facilitator: Any factor that positively impacts health care decisions (Aday & Andersen, 1974); similar to protective factor.

Financial barrier: Any obstacle related to the fiscal expense of obtaining dental services (IOM, 1993).

Mediator: Any factor that could increase or decrease the importance that a barrier or facilitator has on the deferment decision (MacKinnon & Luecken, 2011).

Personal barrier: Any cognitive, psychological, educational, sociological, cultural impediment to obtaining dental care (IOM, 1993; Margolis, 1995).

Protective factor: The genetic, environmental, and social aspects of a person that decrease the possibility of making the decision to defer dental care (The Community Toolbox, 2010).

Routine preventive dental care (RDC): Biannual examination and cleaning of tooth surfaces and annual X-rays if necessary.

Risk factor: The genetic, environmental, and social aspects of a person that increase the possibility of making the decision to defer routine dental care (The Community Toolbox, 2010).

Structural barrier: Refers to “impediments to medical care directly related to the number, type, concentration, location, or organizational configuration of health care providers” (IOM, 1993, p. 39).

Assumptions

The primary assumption surrounding my project was that caregivers do not have the same health care utilization issues as adults without children. As previously stated, the additional component of raising children increases the stress and fiscal demands that adults without children are not subject to which may affect the caregivers’ capacity to obtain RDC for the entire family without sacrificing some aspect of health care. Research indicated the percentage of adults receiving dental care has declined while the percentage of children receiving dental care has increased (Wall, Vujicic, & Nasseh, 2012). These decreases in adult dental visits coupled with increases in child dental visits may have been due to the PDD issue except the current designation of *adult* has not differentiated caregiver status. My research study aimed to bring attention to this shortfall as a new area for research.

The second assumption of this study was that dental deferment was considered an issue of concern for caregivers as demands and responsibilities require sacrifices. DeVoe et al. (2007) discovered parents felt insurance coverage for themselves was crucial in order to be healthy enough to care for their children; thus, it was apparent some parents felt being healthy was an essential element in their ability to care for their children. Unfortunately, being insured does not guarantee receipt of health and dental care services; issues with access and out-of-pocket fees often present impediments even for families with insurance coverage (DeVoe et al., 2007).

Yin (2009) considered interviews a staple of case study evidence but cautioned researchers to corroborate answers whenever possible through alternative data sources. Therefore, a third assumption of this study was that participants would provide candid responses to the interview questions. Inherent in all qualitative interview data collection is the potential for response bias and poor recall, especially when questions pertain to sensitive information (Patton, 2002; Yin, 2009). Building rapport with participants, ensuring responses will be kept confidential, and sequencing questions from relatively innocuous toward more personal questions should elicit honest answers from interviewees (Patton, 2002). Another assumption concerning participant responses was that the sample size (10) would be sufficient to answer the research question. However, 10 was the minimum number of participants that would have been interviewed with additional participants interviewed until saturation and redundancy was reached.

Scope and Delimitations

My study sought to explore the issue of PDD by interviewing caregivers who had made the decision to defer their personal dental health for their children’s dental health. I intended to illustrate how the deferment decision was made, what situations and risk factors led to that decision, and how the decision had impacted the caregivers’ perception of themselves as caregivers. This also served to illuminate the need for distinction within the category of *adult* to account for health care procurement differences due to caring for children.

I selected this emphasis after informal discussions with caregivers on the problems they encountered with obtaining RDC for their family. These conversations illuminated the wide-range of circumstances that necessitated caregivers forgo aspects of their health in order to provide their children with a healthy life. Several of these caregivers were aware of the dangers of forgoing preventive dental care but were unable to afford RDC or navigate the obstacles to impeding their access to RDC. Research into the issue of sacrificing or delaying dental care resulted in the creation of a new phenomenon titled PDD that has not been broached in the literature. Combined with the research reporting an association between poor dental health and cardiovascular disease, the awareness that dental deferment is detrimental supported the assertion that good oral health is crucial and should not be sacrificed.

Participants in this study were caregivers in Pinellas County, Florida. Residents in Pinellas County are relatively homogeneous with over 80% of the population identifying as White (U.S. Census Bureau, 2011). Thirteen percent of Pinellas County residents speak a language other than English at home, and 88% of residents have at least a high school diploma (U.S. Census Bureau, 2011). Participants in this study were Pinellas County caregivers who had accessed dental health services for their children at least once within 12 months, but had not received RDC for themselves in at least 12 months. This study focused on recruiting participants who comprehend, speak, and write English fluently regardless of ethnic background. Results may not be transferable to adults without children who have not received RDC within 12 months or in situations involving medical care deferment. However, the results may be transferable to participants with similar characteristics in a similar setting.

Limitations

One design challenge in conducting a case study is adequately defining the concept under study (Creswell, 2007). The case(s) should provide enough data to detail a thick, rich description of the concept without becoming trivial and superficial (Patton, 2002). By bounding the case within a setting, time, or activity, the researcher can narrow the case to a feasible endeavor (Baxter & Jack, 2008). Case studies are often criticized for the lack of scientific rigor (Crowe et al., 2011; Yin, 2009). Rigor is considered the hallmark of good research. However, qualitative researchers can employ several strategies to improve the rigor of their study. Crowe et al. (2011) recommended using transparency to address the lack of rigor in a qualitative study; transparency can be achieved by delineating the steps of the study process in great detail. Patton (2002) suggested establishing researcher credibility, and therefore scientific rigor, through audit trails, interview notes, triangulation, and acknowledging rival conclusions. Crowe et al. (2011) added respondent validation and theoretical sampling to the list of strategies for establishing rigor within a qualitative study.

Another design limitation of the case study approach is limited generalizability or transferability to other settings and contexts (Yin, 2009). Yin (2009) considered case study research an opportunity to “expand and generalize theories” not provide mathematical support for current theories (p. 15). Fossey, Harvey, McDermott, and

Davidson (2002) asserted that the responsibility for determining the applicability of qualitative findings to other settings falls to the reader. Researchers can enhance the reader's capacity to transfer pertinent constructs from the study to their own situation by thoroughly bounding the case and meticulously describing the procedures.

In qualitative inquiries, the researcher is typically involved in the collection and analysis of the data. The researcher's involvement presents the possibility of introducing bias into the study. One strategy to reduce the influence of researcher bias is to acknowledge and report the potential sources of bias within the study (Creswell, 2009; Patton, 2002). Yin (2009) recommended incorporating contrary findings or alternative explanations in an effort to reduce researcher bias. Triangulation, the use of multiple sources of data, investigators, and methods, also reduces the possibility of bias during data analysis (Patton, 2002).

To address the potential limitations of the PDD study, I utilized multiple strategies designed to minimize the impact of the limitations. The case was bound by time and place enabling the collection of a manageable volume to generate a thick, rich description of the phenomenon. Next, I meticulously demarcated the precise steps in the qualitative case study, establishing transparency and improving scientific rigor. I also employed audit trails, process notes, and respondent validation to facilitate rigor. The use of these strategies did not only address design limitations, but also enhanced transferability of the results to similar situations.

Significance

The findings of my study could make substantial contributions to the field of public health and result in significant social change. One contribution to the field of public health may be acknowledging caregivers as a separate category in research; adults without children may not consider the same factors important when making health care decisions as caregivers. The added element of caring for dependents influences and impacts the health care decision-making process. These results may also contribute to the advance of dental health practice and policy from the identification of barriers that impeded caregivers from accessing and receiving dental health services. The potential changes could include increases in Medicaid reimbursements for dentists, elimination of structural barriers to obtaining RDC, and new avenues for RDC care for the uninsured and underinsured. Until caregivers identify the particular barriers that obstruct their access to RDC, changes to the dental health care system will not result in improvement in Healthy People 2020 oral health objectives. Moreover, the findings of my study may result in significant progress in closing the oral health disparities gap. As more options become available for obtaining RDC for every family member, caregivers may be less likely to find themselves in a situation where dental deferment is necessary. A reduction in dental deferment will increase the proportion of adults who receive RDC thereby achieving one of the Healthy People 2020 goals for oral health.

Summary

Oral health is an important component of overall health but is often sacrificed in financially difficult periods. Unfortunately, poor oral health has more far-reaching ramifications than dental caries, periodontal diseases, and halitosis; poor oral health has been associated with increased rates of cardiovascular disease and stroke, among others. These conditions warrant improving RDC utilization rates. Caregivers strive to provide their children with the best health care possible which can mean deferring their personal health care so that their children have access to routine medical and dental care. PDD is a previously unstudied phenomenon that should be explored to identify what risk factors lead to the deferment decision so public health interventions can adequately target the barriers to RDC. In Chapter 2 I will present a detailed account of relevant literature pertaining to the PDD issue, while in Chapter 3 I will describe the specific methodology used to explore this phenomenon. I will present the findings from this study through the words of the participants who experienced PDD in Chapter 4. Finally, in Chapter 5, I will interpret those findings within the current literature, as well as identify limitations of the study, future directions for research, and recommendations for practice.

Chapter 2: Literature Review

Introduction

If situations or events lead caregivers to forgo their personal dental health for the dental health of their children, this decision could become detrimental to the caregivers' dental health. Poor oral health also has been linked with several diseases and conditions such as heart disease, diabetes, and stroke (IOM, 2011). Discovery of the association between oral health status and the occurrence of these diseases and conditions makes it vitally important to determine why caregivers are still sacrificing their dental health for their children's dental health. Regrettably, the research into the PDD phenomenon has been largely overlooked. The purpose of my study was to identify the risk factors that resulted in the decision to defer parental RDC for the children's dental care.

Vujicic et al. (2013) reported an increase in dental care for children but a decline in adult dental care utilization between 2000 and 2010. While the improvements in children's dental care utilization rates were largely found in the lower income groups, this could have been partly due to expansions in state and federal public health programs that provided increased access to low income children (Vujicic et al., 2013). However, parents have difficulty finding dental offices that accept Medicaid due to low reimbursements for dental procedures (CMS, 2011, Fox, 2013). As the same time, public health programs expanded dental care access for children while reducing or eliminating adult public health dental care programs (Milgrom et al., 2010). This leaves some caregivers in a bind to locate a dental office that accepts Medicaid or juggling financial priorities to afford the child's RDC. Understanding what leads caregivers to this deferment decision will enable policymakers and public health practitioners to develop oral health interventions for caregivers and children.

I present a detailed literature review regarding or relating to the PDD phenomenon. The first section will include the specific search terms utilized to locate relevant articles. Next, I describe the two conceptual frameworks that suggest factors that could impact the deferment decision. Finally, I present an analysis of the literature that pertains to the PDD topic to establish the need for this study.

Literature Search Strategy

The literature search began with three primary search engines, the Walden University library (specifically Medline and ScienceDirect), Google Scholar, and PubMed using the search terms of *dental health* or *oral health* plus conjugations of *defer*, *ration*, *sacrifice*, or *forgo* and declensions of *parent*, *caregiver*, *mother/maternal*, or *father/paternal*. I found no articles with those terms pertaining to the dental deferment phenomenon, so I used alternative search procedures to ascertain potential literature. Concepts associated with major propositions of the conceptual framework such as *barrier*, *utilization rate*, *risk factor*, *protective factor*, *policy*, and *cost* were combined with different configurations of the primary search elements to locate pertinent research articles. During the review of each obtained article, I noted and researched citations for potential inclusion; I also perused the full reference list of each article for possible additions to the literature. I excluded studies related to the oral health or dental health of older adults, elderly people, or senior citizens. I did not necessarily exclude studies related to the oral health or dental health of adults if the results and findings could impact the receipt of or access to RDC for children. However, studies of that nature were limited due to the focus of this study on parental health care decisions as they relate to their child's health. I conducted additional searches with a standard Internet engine to locate and access full-text articles, topics, organizations, and statistics.

Conceptual Framework

Oral Health Conceptual Model

Despite gains in oral health overall, the prevalence of dental caries is still markedly high in children. Combining the standard medical model approach to disease prevention with innovations in the field of population health, Fisher-Owens et al. (2007) developed a conceptual model to identify determinants of children's oral health. The children's oral health conceptual model is a multidimensional, multilevel framework that incorporates the numerous influences of the social, environmental, and biological factors on a child's oral health, acknowledging the interplay of these factors over time (Fisher-Owens et al., 2007). The model encompasses five domains—genetic and biological, social environment, physical environmental, health-influencing factors, and medical and dental care—within three levels: child, family, and community (Fisher-Owens et al., 2007).

Fisher-Owens et al. (2007) developed their oral health conceptual model to fill the void in traditional oral health research that could not accurately predict oral health outcomes. Using advances in social epidemiology and population health, namely the multidimensional approach to identifying determinants of oral health behaviors, this model posits "influences do not act in isolation but rather via complex interactions"

(Fisher-Owens et al., 2007, p. e511). The conceptual model also incorporates the multilevel aspect of health-influencing factors as individuals and families live, work, and travel within and between communities. Unique to the Fisher-Owens et al. (2007) model is the attribute of time or developmental changes that occur in a child's oral health, which could suggest specific points of intervention. The authors conceded empirical application of the model presents some challenges in testing, but with its basis in epidemiology and population health research, they asserted the children's oral health conceptual model will make a significant contribution to the field of oral health research (Fisher-Owens et al., 2007).

The Fisher-Owens children's oral health conceptual model has been empirically tested in several studies to determine the accuracy of the model in improving children's oral health outcomes. Ismail, Sohn, Lim, and Willem (2009) tested the conceptual model with almost 800 pairs of African-American children and their caregivers to counter two of the limitations found with previous studies of multilevel frameworks—cross-sectional data and multidimensional determinants of the same population. In a longitudinal study, Ismail et al. (2009) conducted dental assessments (child) and interviews (caregivers) to compare associations between the risk factors and between the two waves of examination. The researchers selected child-, family-, and community-level influences on health based on the Fisher-Owens et al. (2007) conceptual model and used a backward elimination to develop the most applicable predictive model. The results indicated factors from all three levels can predict an increase in dental caries experience (Ismail et al., 2009). This study validated the multidimensional and multilevel influences of child oral health outcomes as proposed by the Fisher-Owens et al. (2007) model.

Bramlett et al. (2010) conducted a study of over 26,000 children ages 1–5 using data from the 2003 National Survey of Children's Health to explore the utility of the model in identifying factors that influence children's oral health at four levels—child, family, neighborhood, and state. Using multilevel logistic regression modeling, the authors identified factors within 15 of the initial 22 domains that were significantly associated with children's oral health; results indicated very few correlates at the state level, state-level access to fluoridated water being the exception, with the majority of the significant effects found within the child, family, and neighborhood levels (Bramlett et al., 2010). Additionally, the domains of community oral health environment and medical and dental care system characteristics were not found to have significant influences on a child's oral health, but Bramlett et al. (2010) suggested these domains may be important for older children. The researchers recommended further studies be conducted to take a "broader perspective" on the categories of factors influencing children's oral health (Bramlett et al., 2010, p. 8).

Barker and Horton (2008), Naidu, Nunn, and Forde (2012), and Telleen et al. (2012) utilized the Fisher-Owens et al. model in conjunction with other models to determine what factors influenced the oral health experiences of children. The three studies focused specifically on the cultural values that influence oral health behaviors and decisions. The studies by Barker and Horton (2008) and Telleen et al. (2012) centered on the experiences of Latino children and caregivers in California and Chicago, respectively.

Naidu et al. (2012) examined the cultural influence on oral health of caregivers and preschool children in Trinidad. Results from all three studies indicated the intersection of family, society, and institution (policy) with the participants' culture impacting and influencing the parental decisions regarding accessing and receiving dental care for their children. Collectively, the authors of the studies recommended oral health promotions and interventions consider the role culture has to play in oral health care and how culture intersects with the multiple levels of influence (Barker & Horton, 2008; Naidu et al., 2012; Telleen et al., 2012).

Although initially developed for children's oral health, the Fisher-Owens et al. (2007) model can and should be applied to lifespan oral health outcomes. A similar multidimensional and multilevel model, the ecological perspective, has been implemented with several populations, diseases, and interventions (for a brief sample, see Kumar et al., 2012; Langille & Rodgers, 2010; Nuss, Williams, Hayden, & Huard, 2012). The Fisher-Owens et al. (2007) model incorporates a holistic assessment to disease prevention including a developmental aspect that can be applied to adolescent, adult, and senior citizen oral health interventions, not strictly to children who rely on caregivers to model healthy dental behaviors. A study by Weintraub, Prakash, Shain, Laccabue, and Gansky (2010) revealed family influences, specifically untreated maternal caries experience, nearly double the odds of the child having untreated caries. These results support the need for multilevel oral health interventions at all ages.

Access to Personal Care Model

Margolis et al. (1995) advanced the work of the access to personal health care services model initially developed by the IOM in 1993. The IOM convened the Access Monitoring Project committee to propose a set of indicators that measure issues of access to care for the nation and build a database of measurements to be analyzed and interpreted (IOM, 1993). The committee created the access to personal health care services model to illustrate how barriers, utilization patterns, and mediators influence health outcomes. The barriers reflected in the model include financial, structural, and personal that may impede access to health care services. Utilization patterns involve the frequency of visits and types of procedures available, offered, and received. The mediating factors consider such things as treatment appropriateness, quality of care, and patient adherence to treatments. Outcome measures such as health status and equity of services are used in combination with utilization rates to capture accurate numbers of those who enter the health care system and receive adequate services.

Margolis et al. (1995) focused on identifying and explaining the nonfinancial barriers to access around which practical interventions can be developed to reduce or eliminate those barriers, ultimately improving access to care for many people. The authors asserted the model can be used to facilitate collaboration between public health and clinical services to provide “a greater impact than those that rely on either system alone” (Margolis et al., 1995, p. 541). Margolis et al. (1995) pointed out three structural barriers that impact children’s access to health care that will not be eliminated without concerted efforts between collaborative partners in the access to health care process;

limited availability of physicians, limited continuity of care, and organizational barriers to care are significant obstacles encountered by caregivers that hinder health service access for children. The authors contended personal barriers like language, work and family expectations, cultural beliefs, and poor health literacy impede access and would not be resolved with simple changes to health care financing (Margolis et al., 1995). The authors asserted interventions targeting only one barrier (i.e., financial) will not result in successful population-wide improvements in health (Margolis et al., 1995). The importance of particular barriers and obstacles differs for each family, and when one barrier is removed, other obstacles may still prevent access to health care services. DeVoe et al. (2007) supported this assertion with findings that indicated even when insurance coverage was obtained, additional obstacles due to locating or traveling to health centers, insurance acceptance, and copays or deductibles prohibited access to health care services. Margolis et al. (1995) described several potential interventions in clinical settings and within the community that encompass practice management improvements, health education, collaborative partnerships, and social support systems, stressing the need to integrate private practice health care and public health care.

The access to personal health care services model has not been utilized in many studies as the sole conceptual framework of the study. Kelly et al. (2005) created focus group guides based on some of the barriers identified in Margolis et al. (1995) model as the conceptual framework met the long-term goals of the project. Cooper, Hill, and Powe (2002) combined the access to personal health care services model with features of a second model “to provide more specific directions for designing and implementing effective interventions" in health care delivery (p. 478). Williams, Tumiel-Berhalter, Purdy, Ransom, and Anderson (2012) adapted the conceptual model in a study investigating racial disparities in minority populations with comorbid conditions. Despite the interaction between the financial, structural, and personal barriers in the Margolis et al. (1995) model, none of the studies accounted for all three types. Both Kelly et al. (2005) and Cooper et al. (2002) focused on the personal and structural barriers to care, while the Williams et al. (2012) study explored the personal and financial barriers to care. As DeVoe et al. (2007) demonstrated, access to health care services requires more than elimination of one type of barrier.

The access to personal health care services model was initially developed for vulnerable, uninsured, and minority groups to determine where breakdowns in access to care occurred and what points are amenable to improvements. The IOM and NRC (1998) later revised the model and applied it to children's access to health services. The primary focus for model use has been access to medical services with little reference to dental care. However, Kelly et al. (2005) did incorporate elements of the model into their study exploring barriers to accessing children's dental care. As mentioned above, no study has utilized all components of the access to personal health care services model in a research study. In this study, I sought to integrate all three types of barriers, as well as facilitating and mediating variables, into an investigation of the access issues affecting caregivers who sacrificed their personal RDC for their children's RDC.

Literature Review

This review considered the factors that influence the decision to obtain or forgo RDC. In 1974, Frazier et al. conducted a qualitative study on the barriers faced by parents in obtaining oral health services for their children. Their results indicated a need for the exploration of nonfinancial factors such as psychological, environmental, sociological, and cognitive in oral health care-seeking behaviors. This objective corresponded with the constructs of the two conceptual frameworks selected as a basis for this study. Using the two conceptual frameworks as a guide, the next section will illuminate potential barriers and facilitators that impact caregivers' decision to sacrifice their RDC for the sake of their children. The four primary categories—financial, structural, personal barriers, and facilitators/mediators—were taken from the Margolis et al. (1995) model. Each primary category will be further segmented based on determinants found within the Fisher-Owens et al. (2007) model.

Financial Barriers

Insurance coverage. Public health researchers and practitioners have assumed that the primary barrier to obtaining medical and dental care is based on financial affordability and improving access to health insurance or public health care would encourage more people to seek health care services. Jones et al. (2013) reported patients who visited Federally Qualified Health Centers experienced delays in accessing dental services as well as faced unmet dental care needs. Several study participants stated insurance companies would not always approve dental services, did not cover dental services, or high cost sharing (copays and deductibles) prohibited accessing dental services (Jones et al., 2013). An assessment of medical expenditure data by Ku and Broaddus (2008) indicated insurance copays or deductibles are often too costly for consumers, compelling them to choose between competing health priorities. This suggests offering free or low-cost health care would be an appropriate solution to reduce or eliminate oral health disparities. On the contrary, Maserejian, Trachtenberg, Link, and Tavares (2008) found “the provision of free preventive dental care was insufficient to remove the disparities in utilization” (p. 139). This implies factors other than financial barriers influence the decision to obtain dental health services. Research by DeVoe et al. (2007) revealed insurance coverage alone does not guarantee receipt of health care services. The researchers found three hierarchical factors are needed to obtain health care services—insurance coverage, access to services, and affordable costs (DeVoe et al., 2007). Nasseh, Vujicic, and O’Dell (2013) concurred with this perception, asserting that availability of dental benefits does not equate with dental service utilization; in fact, even those with dental benefits often find additional roadblocks limiting access to RDC (Nasseh et al., 2013).

Indirect expenses. Out-of-pocket expenses such as copays, deductibles, and services not covered by insurance plans add to the financial unaffordability of obtaining and/or maintaining coverage and accessing health care services. Caregivers must also deal with wage loss, transportation costs, and securing childcare for their other children which further compounds the affordability concern of procuring medical and dental care for themselves and their families (DeVoe et al., 2007; Jones et al., 2013; Kelly et al., 2005; Wallace & MacEntee, 2013).

Structural Barriers

Structural barriers are obstacles within the social and physical environment that impede access to and receipt of health care services. This type of barrier includes geographic distance and transportation issues (Ahn, Burdine, Smith, Ory, & Phillips, 2011; Curtis, Evans, Sbaraini, & Schwarz, 2007; Skillman, Doescher, Mouradian, & Brunson, 2010), healthcare provider attitudes and school policies (Kelly et al., 2005; Moore & Kotelchuck, 2004; Wells & Sarkadi, 2012), and workday expectations (Moore & Kotelchuck, 2004). Structural barriers also refers to shortages in health care providers or types of services that leave residents traveling long distances (IOM & NRC, 2011) or utilizing closer emergency services unnecessarily (Lee, Lewis, Saltzman, & Starks, 2012). Often, impediments due to structural barriers are compounded by indirect costs from time, childcare, and transportation fares.

Distance and transportation. Curtis et al. (2007) found geographic distance affected the procurement of dental services for Australians living in rural or remote locations. The findings indicated the greater distances traveled increased indirect costs in time and family inconvenience resulting in higher total cost per treatment for those living outside of metropolitan areas (Curtis et al., 2007). A recent review by Skillman et al. (2010) pinpointed specific access difficulties encountered by residents of rural areas and small towns leading to poorer oral health statuses than those living in urban areas and large cities. Larger travel distances, greater travel times, lack of dental insurance, lower socioeconomic level, and less access to proven oral health promotions (fluoridated water and oral health education) negatively impact the oral health of rural populations

(Skillman et al., 2010). The structural barriers identified by these authors impact caregivers' ability to access RDC for their families and may cause caregivers to reevaluate the need for personal RDC in order to provide for their children's RDC when facing these impediments.

Transportation concerns can present an obstacle to caregivers seeking health care services for their family. As mentioned in the previous paragraph, distance is one facet of transportation that affects health care access, but other transportation issues can also pose a barrier. Lack of reliable transportation is an obvious impediment, but needing to rely on family members, public transportation, or Medicaid-provided transportation makes attending medical or dental appointments difficult. Some participants in the Kelly et al. (2005) study indicated problems using public transportation to access health care appointments while other participants felt the Medicaid-provided transportation service was not convenient. Almost half the respondents in the Ahn et al. (2011) study perceived community transportation to be a barrier to accessing dental care services. Participants in the Curtis et al. (2007) study and the Kelly et al. (2005) study reported having to rely on family members for transportation, either as the driver or the primary user of the vehicle.

Policy and attitude. Dental office and school policies can become barriers for caregivers to access RDC for their family. Due to low reimbursement for dental services or delays in Medicaid payments, the number of dentists accepting Medicaid patients is low (Fox, 2013). The dentist's decision to accept or refuse Medicaid insurance presents many structural barriers to caregivers. Caregivers with Medicaid-enrolled children spend a disproportionate amount of time locating dentists who accept Medicaid payments or contend with legal forms of discrimination (Mofidi et al., 2002). Respondents in the Kelly et al. (2005) study perceived discriminatory treatment from dental office staff after confirming Medicaid status; dental staff responses range from declining appointment openings and long wait times for appointments to rescheduling appointments and poor quality treatment options. School attendance policies can also hinder the caregivers' capacity to provide oral health care for their children. Some schools perceive dental appointments differently than medical appointments, requiring caregivers to provide proof child attended necessary health services (Kelly et al., 2005).

The stigma associated with receiving Medicaid and public assistance can often be felt by caregivers when accessing health services. Focus group participants from the Mofidi et al. (2002) study reported encounters with dental office staff as "demeaning and degrading," discouraging caregivers from returning to that office for oral health care services (p. 55). Moore and Kotelchuck (2004) found fathers were less likely to attend additional medical and dental appointments with their children if they perceived disrespect from health care office staff. Research by Wells and Sarkadi (2012) indicated fathers perceived Sweden's Child Health Centers did not equitably promote father participation in their child's health care due to the centers' operating hours, staff attitudes toward paternal involvement, and consultation emphasis on the mother-child relationship and breastfeeding. Sweden has developed a few of the most "egalitarian family policies" related to parental leave and child health care, yet a preferential attitude toward maternal involvement still exists (Wells & Sarkadi, 2012, p. 25); this biased attitude against male caregivers could be a barrier in health-related decisions.

Workday expectations. For some caregivers, workday requirements act as a barrier to seeking health care services. Most medical and dental offices follow a variation of the typical work day schedule: Monday through Friday, 8 AM to 6 PM. This demands caregivers leave work to attend health care appointments; if prior appointments, vacation, or illnesses have utilized all available paid time off, caregivers lose crucial wage dollars for unpaid leave (Kelly et al., 2005). This can be doubly challenging if health care offices reschedule or cancel appointments necessitating caregivers to rearrange transportation needs or time off from work last minute. A review of the literature of the effect of labor policies on child health found when parents cannot leave work to care for a child (illness or preventive checkups), they are pressed “to compromise either their child’s needs or their work responsibilities and risk income or job loss” (Heymann, Earle, & McNeill, 2013, p. 365). The potential loss of income or employment could negatively impact their health care-seeking decisions, whether for their children or for themselves. Fathers in a study by Moore and Kotelchuck (2004) reported work-related reasons as a barrier to attending a child’s medical and dental appointments, and employers who were supportive of family requirements or permitted flexible work hours were motivators to paternal involvement in a child’s medical and dental visits. Paternal respondents in the Garfield and Isacco (2006) study also reported work-related factors as a barrier to attending medical and dental appointments with their children. Massachusetts enacted the Small Necessities Leave Act of 1998 which allows parents and caregivers 24 hours of unpaid leave to attend a family member’s health care appointments. Unfortunately, it only applies to companies with 50+ employees (Moore & Kotelchuck, 2004). The concept is ingenious but misses the mark for caregivers who work for companies with less than 50 employees, are self-employed, or live paycheck to paycheck and cannot afford any loss in wages.

Personal Barriers

Personal barriers affect health care decisions along many levels of influence, and they can impact whether a person seeks health care services or if they adequately follow recommended treatment procedures. This type of barrier includes factors related to language (Flores & Tomany-Korman, 2008; Mejia et al., 2011) and health literacy (Miller et al., 2010), oral health beliefs and culture (Butani, Weintraub, & Barker, 2008; Miltiades, 2013), genetic and biological factors (Grembowski et al., 2007; IOM, 2011), dental fear (Armfield, Stewart, & Spencer, 2007; Goettems, Ardenghi, Romano, Demarco, & Torriani, 2012), and education level and occupation (Guarnizo-Herraño & Wehby, 2012; Yu et al., 2002; Jimenez, Dietrich, Shih, Li, & Joshipura, 2009). The Institute of Medicine (1993) deems the changing demographics of the nation a valid impetus to consider a focus on reducing or eliminating personal barriers to health care access.

Language and literacy. The capacity to understand and communicate is a necessary to receive and process health-related information. The multicultural diversity of the United States can be a barrier if the English proficiency of caregivers is limited, leading to disparities in access to and utilization of health care services. A study by Flores and Tomany-Korman (2008) indicated children in non-English-primary-language households were more likely to be poor, lack medical and dental insurance, to have poor or fair teeth condition, and to not have had RDC within the last 12 months. As previously stated, oral health has a direct relationship to general health, with poor oral health associated with poor overall health. Mejia et al. (2011) found more children who spoke a language other than English at home, as a proxy of acculturation, were less likely to have dental sealants; acculturation is considered an important factor in the “health seeking and preventive behaviors” (p. 1).

The other side to communicating with health care professionals is the capacity to understand the basic health information that informs health decisions (IOM, 2004). Jackson (2006) asserted receiving oral health information was not enough to prevent or reduce oral health issues; instead, the ability to read, comprehend, and implement the recommended oral health procedures was a necessary step in the process. A recent study by Miller et al. (2010) indicated caregiver literacy level was associated with a child’s oral health status, but not with oral health knowledge. Vann, Lee, Baker, and Divaris (2010) found similar results in their study of female caregivers. Mothers with lower literacy scores were less likely to report daily brushing and flossing behaviors in their children and more likely to put their children to bed with a bottle (Vann et al., 2010). Caregivers with poor health literacy may not realize the need for good oral health behaviors for themselves as well as their children. Improving access to and usage of oral health care services in households where English is not the primary language spoken or in those with lower literacy levels would be beneficial in reducing oral health disparities in this population.

Oral Health Beliefs and culture. Culture is the shared beliefs, values, and traditions of a group of people that are passed down from generation to generation (Huff & Kline, 2008). Those shared beliefs, values, and traditions include knowledge and behaviors related to oral health care and could be a barrier to access and use of dental services. A literature assessment of cultural oral health beliefs and practices conducted by Butani et al. (2008) found scant literature on the impact of cultural factors on oral health, but reported cultural factors influence the condition of the oral cavity, diet, care-seeking behavior, and use of traditional folk remedies. Cultural beliefs and values may influence some caregivers to discontinue personal RDC for the sake of their children's oral health or instill differing levels of importance to adult RDC and the RDC of offspring (Butani et al., 2008). A qualitative study of oral health beliefs of Mexican American women by Miltiades (2013) revealed the differences in cultural understanding of the importance of oral health; cultural oral health beliefs including misconceptions and misinformation are passed down through the families resulting in multiple generations of poor oral health (Miltiades, 2013). Results from the Kelly et al. (2005) study indicated oral health beliefs had a major impact on accessing dental services. Responses from caregivers who accessed RDC for their children focused on prevention of oral health issues and felt RDC was as important as overall health; caregivers who had not accessed dental services for their children presented a mentality of dental fatalism (tooth loss is inevitable) and physical health is more important than dental health with dental issues treated at home with home remedies (Kelly et al., 2005). Handwerker and Wolfe (2010) hypothesized a "shared cultural understanding" of oral health knowledge and behaviors that viewed dental problems as a cosmetic issue not a disease (p. 401). The results also suggested poor oral health is not due to access issues, but with an individual's inability to follow standard oral health practices, irrespective of socioeconomic status, gender, race/ethnicity, or insurance status (Handwerker & Wolfe, 2010).

Genetics and biology. The Surgeon General has referred to the mouth as a mirror to the rest of body and research has proven a relationship between oral health and overall (HHS, 2000; IOM, 2011). From what is passed down through genes to what bodies are exposed to, genetics and biology can influence a person's oral health. Maternal transmission of dental caries bacteria is the primary source for dental caries infections in children under two years of age (Grembowski et al., 2007). Weak to moderate associations between periodontal diseases and cardiovascular disease have been detected (Helfand et al., 2009; Sanz, D'Aiuto, Dean, & Fernandez-Aviles, 2010), but researchers concede an inability to determine a causal link between the two and recommend additional research be conducted (Cullinan, Ford, & Seymour, 2009; Lockhart et al., 2012). Periodontal diseases have also been associated with diabetes, respiratory disease, and poor pregnancy outcomes (IOM, 2011). Orofacial injuries are largely preventable, but can leave physical and emotional scars that impact oral health behaviors and decisions (HHS, 2000). Diet and nutrition also affect oral health. Fruits, vegetables, vitamins, and minerals promote good dental health (IOM, 2011; mouthhealthy.org, n.d.). However, overconsumption of acidic foods, including some fruits and vegetables, can erode tooth enamel, so care should be taken to limit the intake of acidic food items to minimize damage (Bartlett et al., 2011; El Aidi, Bronkhorst, Huysmans, & Truin, 2011;

mouthhealthy.org, n.d.). In summary, tooth loss, orofacial pain, high sugar consumption, carbonated beverages, and medications can adversely impact the development and maintenance of teeth and gums.

Dental fear. Dental fear and anxiety can be a difficult personal barrier for caregivers to overcome even for the sake of their children's health. Results from a study by Armfield et al. (2007) indicated higher levels of dental fear were associated with delayed dental visits, longer time between visits, and visits only when severe dental problems occur. Although Armfield et al. (2007) did not discuss the relationship between an adult's dental fear and a child's dental fear, several studies have revealed parental level of dental fear predicted the child's level of dental fear through social modeling (Lara, Crego, & Romero-Maroto, 2012; Lin et al., 2013; Smith & Freeman, 2010). Goettems et al. (2012) found a high level of maternal dental anxiety was associated with untreated dental caries in their children. The authors posited that since dental anxiety often results in dental care avoidance, dentally anxious mothers could be impeding access to oral health care services for their children (Goettems et al., 2012). Several researchers speculate when caregivers miss a child's dental appointment, they are imparting negative oral health beliefs and attitudes to their children (Goettems et al., 2012, Wigen, Skaret, & Wang, 2009; Wigen & Wang, 2012). Participants in the study by Margaritis, Koletsi-Kounari, and Mamai-Homata (2012) conceded their oral health anxiety was a learned behavior from observing family members' and friends' reactions to dental care. However, participants also disclosed a desire to overcome their dental anxiety to prevent modeling this behavior for their children (Margaritis et al., 2012).

Education and occupation. Differences in education and employment can lead to inequalities in oral health status for both adults and children. A study by Yu et al. (2002) indicated children of parents with lower educational level were less likely to meet dental visit recommendations. Although, the authors suggested a lack of awareness and exposure to dental recommendations (bi-annual visits) may be the culprit in low dental attendance numbers. Timiş and Dănilă (2005) asserted the relationship between lower education levels and poor oral health is due to reduced opportunities to receive and understand oral health education and promotion campaigns, but acknowledged that more research is needed in determining the value socioeconomic status indices have on disparities in oral health. Results of a research study by Guarnizo-Herreño and Wehby (2012) also supported the above assertions in that socioeconomic indicators (specifically maternal education and poverty level) were significant predictors of increased dental problems, higher rates of poor/fair dental health status, and lower rates of preventive dental care. The authors suggested maternal education and socioeconomic status "strongly influence maternal/household knowledge and enforcement of optimal dental hygiene practices and dietary patterns" (Guarnizo-Herreño & Wehby, 2012, p.7).

Occupation is another factor that can present a barrier on access to oral health services. Primarily, many employers offer medical and dental insurance to their employees. However, dental insurance is a separate expense that may not be affordable to families (IOM, 2011). If the caregiver is self-employed or works for a small business, dental insurance may not be available, let alone affordable (IOM, 2011). Additionally, families with two working parents may have incomes too high to qualify for public dental health assistance but too low to afford employer-sponsored dental insurance (Starfield, 2000). Starfield (2000) reported mothers who work full-time are less likely to obtain health care visits for their children. Although the statement pertains to medical appointments, with a considerable number of people lacking dental insurance (IOM, 2011), it can be presumed to apply to dental visits as well. Jimenez et al. (2009) found an association between occupation level and number of missing teeth, although there were differences by race. White blue collar occupations reported more missing teeth than white collar occupations; the association was smaller in African Americans in blue collar occupations as compared to African Americans in white collar occupations (Jimenez et al., 2009).

Facilitators and Mediators

Facilitators and mediators have the capacity to influence how a factor affects a decision. Facilitators positively influence decisions, while mediators can be constructive or destructive to the health care decision process. Examples of facilitators and mediators include family attitude, knowledge, communication, quality, continuity of care, and support services (Broder, Russell, Catapano, & Reisine, 2002; Lewis, Linsenmayer, & Williams, 2010), parental use of dental services (Dye, Vargas, Lee, Magder, & Tinanoff, 2011; Isong et al., 2010), social support and religious involvement (Iida & Rozier, 2013; Tellez, Sohn, Burt, & Ismail, 2006), and prior experience with dental providers (Handwerker & Wolfe, 2010; Kelly et al., 2005) can encourage or discourage caregivers to seek dental health services for their families.

Facilitators. Broder, Russell, Catapano, and Reisine (2002) conducted a study to determine perceived facilitators to dental care for caregivers of children with and without HIV. The results indicated a large overlap of facilitators between seropositive groups and seronegative groups. Caregivers of both serostatus with children of both serostatus cited family attitudes and beliefs, logistics, quality of care, physical environment, interpersonal communication, and access to care as positive aspects of the dental care experience (Broder et al., 2002). Participants mentioned dental offices having child-friendly areas, reminder calls, supportive social systems, and friendly, competent dental staff as factors that fostered positive dental visits (Broder et al., 2002). In a study of low-income caregivers' experiences with accessing dental services for their children, Lewis et al. (2010) reported four features that parents identified as facilitating dental care for their children: Women, Infants, and Children (WIC) involvement, local Access to Baby and Child Dentistry (ABCD), dental offices located with or near other health care providers, and adequate physician involvement. Participants in the study considered coordinated efforts between physicians, dentists, and social support improved opportunities for oral health education and access to RDC (Lewis et al., 2010).

Parental dental utilization. Several studies have demonstrated a caregiver's dental care utilization has a mediating effect on a child's dental care utilization. Dye et al. (2011) found maternal oral health status strongly predicts her child's health status; mothers with high levels of untreated caries were three times as likely to have children with untreated caries (Dye et al., 2011). The authors also tested this association between maternal tooth loss and her child's dental caries experience and found similar results

(Dye et al., 2011). Isong et al. (2010) hypothesized parental dental use patterns correlated to their decision to seek or defer RDC for their children. The results indicated "a significant positive correlation" between parental use of dental services and their child's RDC utilization (Isong et al., 2010, p. 505). The researchers also found parents who deferred their RDC due to cost also deferred their children's RDC compared to parents who did not defer care (Isong et al., 2010). Unfortunately, the authors made no mention of those parents who deferred their personal RDC but accessed oral health services for their children.

Support systems. Family and social support systems, or lack thereof, can impact a caregiver's capacity to seek and access RDC services. Participants in the Kelly et al. (2005) study cited family support as positive reinforcement to seeking dental health services and poor or no family support as an impediment to surmounting obstacles to dental access issues. A study by Tellez et al. (2006) found the number of churches and the number of grocery stores within the geographical area of research had an impact on the levels of caries of the participants. According to the results, the higher the number of churches within the area was associated with a lower rate of dental caries was sustained even after individual level support was held constant; the authors hypothesized that the churches were a proxy measure of social support which provided a positive health benefit to residents (Tellez et al., 2006). The number of grocery stores, on the other hand, was associated with higher rates of dental caries due to the poor quality of foods available and reduced options for healthy food (Tellez et al., 2006). Similar to social support is the concept of social capital which many consider to have positive, encouraging influences on health (Bartholomew, Parcel, Kok, Gottlieb, & Fernandez, 2011; Iida & Rozier, 2013; Tellez et al., 2006). Iida and Rozier (2013) found the mother's perceived social capital index of her neighborhood was associated with her child's oral health status. The authors calculated a mother's perception of social capital in terms of available support, trust, and reciprocity of assistance within the neighborhood; each participant's responses were summed to create the social capital index (SCI) which was divided into levels with higher levels associated with more neighborhood support, resources, and assistance (Iida & Rozier, 2013). Results indicated a lower SCI was associated with poor teeth conditions, unmet dental needs, and lack of dental visits within the last 12 months (Iida & Rozier, 2013). The researchers believed mothers in perceived higher SCI neighborhoods had more access to health information and resources that supported good oral health behaviors.

Dental experiences. Prior dental experiences can positively or negatively influence a caregiver's decision to seek RDC for themselves and their children. The study by Handwerker and Wolfe (2010) queried respondents on aspects of a dental visit that would encourage or discourage return visits. Interactions with staff, wait times, explanations of procedures, and cost were listed as barriers or facilitators to securing RDC (Handwerker & Wolfe, 2010). Participants in the Kelly et al. (2005) study cited past dental experiences as an influential factor in their health care decisions. Several caregivers mentioned lack of dental experience and resulting poor oral health status as the impetus for procuring RDC for their children; other caregivers expressed frustration, dissatisfaction, and distress from previous dental procedures had shaped their decision to preclude the same reactions for their children (Kelly et al., 2005). A caregiver’s personal anxiety toward dental care may affect their decision defer their personal dental health while another factor encourages them to seek care for their children (for example oral health knowledge, required well-child visits, or child dental emergency).

Summary and Conclusions

Vujicic et al. (2013) assessed a 10 year span of MEPS data (2000-2010) and found adult dental care utilization has decreased while child dental care utilization has increased. However, neither the survey data nor the researchers’ findings consider the relationship between the adult and the child in the results, so it is unknown if any of those adults are caregivers who sacrificed their dental care for their children. The lack of information on this subgroup of the population, caregivers who defer personal oral health care for their children’s oral health care, makes it imperative research is conducted to determine what factors lead to this decision.

This literature review delineated the variety of factors that can influence and impact a child’s access to and utilization of RDC. The two conceptual frameworks suggested four primary categories—financial barriers, structural barriers, personal barriers, and facilitators/mediators—and a host of subcategories that affect oral health care decisions. Unfortunately, how those same factors interact with the caregiver’s decision to defer their personal dental health for the oral health of their children is unknown. The next chapter will include information on how the study will illuminate the experiences that potentially led to a PDD decision and on which factors influenced that decision through the selection of participants and interview questions, clarification of coding and analysis procedures, and interpretation of results.

Chapter 3: Research Method

Introduction

The decision to defer personal RDC for a child's RDC can have profound health repercussions on both the caregiver and the child, which makes ascertaining how the caregiver reaches the decision to defer their RDC a crucial piece of the disparities puzzle. I sought to query caregivers as to what events led to this decision to defer their personal dental for the sake of their children's oral health care. The previous chapter culled the literature to present a host of possible factors influencing oral health care decisions of caregivers. In this chapter, I describe the selection of and rationale for the methodological design of the study, as well as delineate the procedures my study utilized to answer the research question.

Research Design & Rationale

Research Question

The PDD decision is a phenomenon that has not been broached in research before. I defined this concept as the caregiver's decision to forgo their oral health for their children's oral health. For this study, my intent was to delve into the PDD phenomenon by reporting the experiences of those who made that decision to forfeit their oral health. The design of this qualitative case study was guided by an overarching research question: How do Pinellas County caregivers make the decision to defer personal RDC in order to provide dental care for their children?

As well as several subquestions:

What behavioral and environmental factors influence the PDD decision?

What experiences lead participants to this decision to defer personal RDC?

How do these factors impact the participants' perception of themselves as caregivers?

What are the participants' perceptions of personal dental health in terms of overall health?

What are the participants' perceptions of personal health (including dental) in terms of their child's health and wellbeing?

Research Design

Qualitative research is used to explore human behavior by collecting, analyzing, and interpreting the words and actions of individuals or groups. Yin (2011) described five features of qualitative research that provide a more applicable designation across disciplines than a narrow, structured definition. According to Yin (2011), there are five characteristics that distinguish qualitative research from other methods of research:

1. Studying the meaning of people's lives, under real-world conditions;
2. Representing the views and perspectives of the people in a study;
3. Covering the contextual conditions within which people live;
4. Contributing insights into existing or emerging concepts that may help to explain human social behavior; and
5. Striving to use multiple sources of evidence rather than relying on a single source alone (pp. 7-8).

Qualitative research was the appropriate approach for the PDD study to explore and understand how caregivers made the decision to defer their personal RDC to provide RDC for their children, because this method provided an opportunity for the participant to reconstruct the circumstances and situations that ultimately led to that outcome. In qualitative research, participants are not constrained by pre-determined labels or hemmed in by pre-assigned boundaries; participants can illustrate their actions and express their feelings about PDD in their own words.

Several strategies to qualitative research exist and researchers should endeavor to evaluate the strengths and limitations of each type of strategy, as well as the strategy's relevance to the research question of interest. As a previously unstudied phenomenon, PDD was best studied with a strategy that explored how certain situations and experiences led caregivers to make such a decision. PDD could have been studied using a narrative approach, but the nature of narrative inquiry is to collect life stories from a single person or small group, such as a family. The accumulated life experiences are restoried by the researcher into a chronological framework (Creswell, 2007). The narrative analysis could have been an appropriate strategy for PDD, but the researcher might not have uncovered all factors that influenced the deferment decision from a single individual or family unit. However, Yin (2011) described a cross-person narrative approach that incorporated life experiences from several people around a particular event or issue; unfortunately, this type of strategy could not have provided the in-depth analysis of an issue that the case study approach can. Grounded theory was another qualitative approach considered, but the purpose of that type of approach is to collect data in order to generate a theoretical framework for future research (Patton, 2002). Grounded theory may be useful to develop a framework to explain the decision-making process caregivers go through when they defer personal RDC for their children's RDC. However, at this point, more information was needed on the PDD issue, thus necessitating the in depth analysis found in case study research. Finally, phenomenology would also have been a possible strategy for the PDD issue as it permitted discovery of shared experiences of caregivers who had deferred their personal RDC for the RDC of their children (the phenomenon of interest). Researchers utilizing a phenomenological design analyze the collected data for communal themes among participants to develop a textual and structural description of their experiences that creates an overarching essence of the phenomenon (Creswell, 2007). According to Patton (2002), phenomenologists seek to determine the meaning of the experiences of participants to assist in understanding how they make sense of their experience of the phenomenon. Since the purpose of my study was to explore how the decision to defer parental RDC was made not what the experience of deferment meant to the caregiver, phenomenology was not the most suitable strategy to answer the research question. Based on the definition of a qualitative case study from the first chapter, this type of research strategy examines a real-life event in depth, understanding the importance of variances in the contextual conditions that brought about the event (Yin, 2009). Therefore, a case study approach was the most appropriate choice for exploring the PDD phenomenon.

Role of Researcher

Personal biases and values can influence data collection and interpretation, thus the researcher’s role in qualitative research should be carefully contemplated and acknowledged. The role of the researcher generally falls along a continuum between participant and observer with varying degrees of interaction between the researcher and the subjects; researcher roles toward the participant end involve more direct interaction between the two parties and researcher roles toward the observer end involve less direct interaction between the two parties. Qualitative interview studies typically fall closer toward the observer end as the researcher does interact with participants during the interview process by observing the participant's nonverbal communication, emotional state, and demeanor during the interview, then incorporating those annotations in the report (Yin, 2011). However, the researcher is neither fully immersed in covert observation of a participant's daily life, nor overtly participating in daily activities with the subject.

The qualitative researcher also assumes the role of research instrument in the field during participant observations and interviews (Patton, 2002; Yin, 2011). Patton (2002) suggested adopting a stance of empathic neutrality that balances the judgment-free condition of objectivity with the understanding-rich purpose of subjectivity that is inherent in qualitative research. In this study, I took the role of instrument in data collection and endeavored to attain empathic neutrality in the relationship between myself and interviewee.

Creswell (2009) and Yin (2011) recommend including statements of the researcher's personal background and experience with the topic of study and acknowledge the potential for biases that arise from those experiences. As the researcher in this study, I had not been personally impacted by PDD as I am not a parent, nor had my parents deferred their personal dental care for me as a child. However, my sibling is a dental hygienist which during conversations related to the workday, combined with discussions between classmates on health disparities, initiated the exploration of dental care rationing within families.

Additional ethical issues related to the researcher as an instrument and interactions between researcher and participants should be anticipated prior to commencing the study with possible resolutions addressed. As an outsider, the researcher may encounter resistance from the participant that reduces the quality of the information they impart. The researcher should strive to build rapport with the participants that enables the participant to feel comfortable in disclosing responses to personal, sensitive questions (Patton, 2002). The relationship between the interviewer and the interviewee can also be seen as a power differential. Karnieli-Miller, Strier, and Pessach (2009) asserted that in qualitative research, power relations lie along a continuum with full partnership on one side and the asymmetric, researcher-controlled power on the other. As investigators of human behavior, qualitative researchers should have an obligation to the field to engage participants in all phases of the research process—a full partnership. However, a full partnership with participants requires finding the balance between ensuring methodological rigor and safeguarding the participants' welfare and privacy. Karnieli-Miller et al. (2009) suggest maintaining a self-reflective process that infuses the study with elements from both ends of the power relation spectrum.

Methodology

Population and Sampling Strategy

Participants in this study were Pinellas County caregivers caring for a dependent minor that may or may not be biologically related to them (i.e. step-parents, adopted parents, and foster parents), but making health care decisions on behalf of the child. Participants were recruited using a purposive criterion sampling strategy. According to Patton (2002), criteria sampling studies all cases meeting a "predetermined criterion of importance" (p. 238). As the purpose of this study was to determine what circumstances and situations led to the deferment decision, participants must have met the specific criteria that identified them as such. Participants were caregivers with at least one child (less than 18 years old) who accessed RDC once within the last 12 months, but who had not received RDC for themselves within that same time frame. Recruitment concentrated on reaching participants fluent in speaking and comprehending English regardless of ethnicity.

Determining the appropriate sample size for qualitative research studies depends less on reaching an adequate percentage of the population represented and more on the breadth of information elicited through in depth inquiry. Creswell (2007) suggested no more than five participants for a case study, while Yin (2009) stated a larger number of instances (cases) improved confidence in study findings. Patton (2002), on the other hand, recommended designating a minimum sample size that can be expanded until saturation and redundancy have been reached. Saturation and redundancy refer to the point at which no new information is obtained from participant interviews. Onwuegbuzie and Leech (2007b) reminded researchers that the amount of time spent in contact with each case can also affect the saturation and redundancy level. Although a specific sample size could have been selected using a qualitative power analysis of similar studies (Onwuegbuzie & Leech, 2007a), I conducted 10 interviews at which point I reached saturation and redundancy and no new themes and patterns were found. Ten was selected as the minimum number of participants because PDD was a previously unstudied phenomenon which necessitated the accumulation of a broad range of data from those experiencing it that described the scope of the deferment decision. However, the case study approach is designed to examine in depth the concept of inquiry; therefore, as more participants are interviewed, the less concentrated depth is given to each instance. Ten participants were larger than the sample size recommended by Creswell, but provided adequate depth of the findings to achieve improved confidence as suggested by Yin.

Participants were recruited via flyers posted in local community centers, libraries, and coffee shops. The flyers provided a brief description of the study and listed pertinent qualifications, compensation, and contact information (see Appendix A). The flyer had tear-away tabs so interested participants could contact me at their leisure. When potential participants responded via phone, I answered any questions they might have had regarding the study and/or participation in the study; I would have then mailed or emailed a copy of consent form if requested prior to the interview (see Appendix C). If potential participants contacted me via email, I followed the same procedure to answer any questions and offer copies of the consent form.

The qualifications of potential participants were verified through a short qualifier questionnaire given to caregivers over the phone or by email when they contacted me. The qualifier questions determined if potential participants had accessed RDC for themselves within the preset time frame and if they were willing to be interviewed for the research study. Answers to this qualifier questions established the potential participants' suitability as a candidate for interviewing and their willingness to be interviewed. Candidates qualifying to participate were interviewed at a neutral community site such as coffee shop, library, or community center. Additional follow-up interviews, if needed, were scheduled at the participant's convenience.

Instruments

Data from the PDD study were collected at two points: the qualifying survey and the interview. Initial qualifying questions were given when the caregiver contacted me to validate that the participant met the participant criteria. The screening questions included whether the caregivers had accessed RDC for themselves within the last 12 months and if they were willing to be interviewed for a research study. If a caregiver responded with a "no" to the first question and a "yes" to the second and third questions, they were considered for participation in the study. If the caregiver responded with a "yes" to the first question, they did not meet the criteria for inclusion and were not considered for participation. The text of the qualifier questions are found in Appendix B.

The second data collection instrument was standardized and composed of open-ended questions that provided the opportunity for the participant to determine the most important information to present (see Appendix B). As PDD was a previously unstudied phenomenon, no published instrument exists. Instruments containing potential questions regarding RDC access issues were found in a search of the Health and Psychosocial Instruments database of the Walden University Library; however, the few articles discussing barriers to RDC were quantitative in nature. One study utilized both quantitative and qualitative measures to identify and rank the importance of factors that positively and negatively influenced the care-seeking decisions; the researchers also conducted a thematic analysis of focus group responses to augment statistical results from the quantitative questionnaires (Higgs, Bayne, & Murphy, 2001). While utilizing the pre-established questions pertaining to RDC access issues from the Higgs et al. study would have improved instrument validity, the remaining interview topics would have needed researcher-developed questions. However, I found it more conducive to develop my own instrument to determine sufficiency of the interview instrument to answer the research questions and to fit within the interview timeframe than to merge a few pre-established questions with researcher-developed ones. To this end, I developed a set of interview questions based on the initial research question and subquestions. A pilot study was not conducted due to the difficulty to recruit an adequate sample for both pilot and the full study. However, this can be considered as a limitation of my study (see limitations section in Chapter 5).

The aim of my PDD study was to identify and explore the factors that led to a deferment decision through the words of those who had experienced it. Therefore, the interview questions focused on permitting the interviewee to determine how to answer the question using their own words. This type of inquiry followed Patton's recommendation for open-ended questions. Patton (2002) defined open-ended questions as allowing,

> the person being interviewed to select from among that person's full repertoire of possible responses those that are most salient . . . [permitting] those being

> interviewed to take whatever direction and use whatever words they want to express what they have to say (p. 354).

The open-ended nature of the questions let the participant direct the flow of the interview around the topic of the importance of dental health to their family. Spradley (1979/2003) described this style of questioning as a grand tour with the interviewer utilizing probes and follow-up (mini-tour) questions to stimulate responses to a smaller, specific aspect of the experience. Brenner (2006) suggested longer questions intimated longer answers and advocated the use of a broad grand tour question that leads to “natural and emerging minitour questions” (p. 363).

The format of the PDD interview questions may have seemed broad, but the intent was to draw as much information as possible in the fixed timeframe. The first interview question was asked to develop rapport with the caregivers; the question also served to provide background information for the primary research question and the final subquestion. Interview questions two, six, and seven related to the final two subquestions as a comparative aspect on perceptions of the importance of dental care to health care. The third, fourth, and eighth interview questions referred to the first two subquestions on factors that motivated the decision to defer personal RDC for the sake of their children’s dental care. The fifth interview question correlated to how the experiences that led to the deferment decision influenced the participant’s perception of themselves as caregivers. Interview questions nine and ten were included for background and as comparative information for the primary research question. Comparing and contrasting the differences between seeking RDC for their child and RDC for themselves further underscored the answer to the initial research question, as well as the first two subquestions.

Procedures for Recruitment, Participation, and Data Collection

Recruitment flyer.

1. I posted recruitment flyers at local coffee shops, libraries, and community centers. The flyer provided a brief description of the study, participant criteria, compensation, and researcher contact information.
2. When a potential participant contacted me, I answered any questions the individual might have had regarding the study and/or participation in the study. I then offered to mail or email a copy of the informed consent form to the participant for review.
3. I also confirmed participant eligibility by through the 3-question qualifier questionnaire.
4. Once the participant criteria had been met, I scheduled an interview period with the participant at a neutral location at a time convenient to the participant.

Interview.

1. Once the participant had joined the researcher for the interview, I thanked them for participating in the study, restated the purpose, and discussed the consent form.
2. I asked each participant to sign two copies of the consent form—one for the participant and one for the researcher.

3. I asked the participant if they would allow the interview to be tape-recorded to assist in accurately recounting the interview. I explained refusal to be recorded would not have affected their participation, they could have declined to answer at any time, and they could have withdrawn from the study with no reprisals. I also explained the procedures for securely storing the audio and subsequent transcription, as well as eventual disposal of aforementioned audio and electronic records.
4. At the conclusion of the interview, I thanked the participant for sharing their experiences, offered to provide a copy of the transcribed interview, and put forth a request for a follow-up meeting to present the findings for accuracy and validity.

Field notes.

1. Field notes were written during each interview, converted to fuller notes at the conclusion of the interview (preferred) or at first available opportunity, and were augmented with researcher perceptions and clarifications.
2. Full field notes were integrated into data analysis for use in the interpretation of findings.

Data Analysis Plan

Qualifiers. The data collected from the qualifier questionnaire was not kept or utilized after determination of eligibility; paper copies of the questionnaire were shredded and electronic copies were deleted. The only purpose of the qualifier questionnaire was to determine eligibility of potential participants without initiating, and subsequently terminating, the interview after the participant was found ineligible.

Interviews. The data collected from each interview were transcribed verbatim by myself and uploaded into the qualitative software program, NVivo 10 for Windows. Each interview was coded within the software program to enable concept mapping, memoing, and illustrated report generation. Coding provided me with an opportunity to immerse myself into the data, as well as incorporate my personal reflections as part of the memoing process (Patton, 2002). Thematic codes were determined through a combination of *a priori* and emergent coding; *a priori* codes were selected from the reviewed literature, while emergent codes were generated from participant responses. Examples of *a priori* codes from the literature included topics such as indirect costs, transportation, oral health beliefs, and support systems. These topics were further categorized into larger codes like barriers or facilitators to RDC access. The use of both *a priori* and emergent codes is encouraged by Creswell (2007) as a means to enhance thematic analysis of participant responses.

Yin (2009) described four styles of analytic strategy for qualitative case studies: relying on theoretical propositions, developing a descriptive framework for organizing the case, using mixed methods data, and rival explanations. Three of these styles aligned with the PDD study design. First, I used two conceptual frameworks to explain the interactions between multiple levels and domains that influence dental health decisions. These two frameworks were also used to identify possible barriers and facilitators of the PDD phenomenon. Therefore, it made sense to continue utilizing the theoretical propositions the researcher started with during analysis of the collected data. Next, developing a descriptive framework for organizing the case entailed taking the full range of collected data and organizing it based on a framework from the initial literature review which revealed the particular gap that led to the study (Yin, 2009). A review of the literature related to the PDD phenomenon suggested an organizational structure that merged two separate conceptual frameworks into a single model. Finally, acknowledging and incorporating rival explanations not only introduced a measure of rigor into qualitative studies, but assisted in accounting for discrepant cases (Creswell, 2007; Patton, 2002; Yin, 2009). Yin (2009) also delineated several techniques to be used as part of the analysis procedure; of the five techniques described by Yin, pattern matching and explanation building were the most appropriate for my PDD study. Pattern matching seeks to compare patterns within the findings with previously identified patterns from the literature (Yin, 2009). The goal of explanation building is to elucidate the “how” or “why” a phenomenon happened (Yin, 2009). Both of these techniques suited the purpose for my PDD study—comparing respondents patterns of experiences with dental deferment with patterns found in the literature and explaining how and why a caregiver made the decision to defer personal RDC. These analytical techniques also served to improve internal and external validity, a common shortfall of case study research (Yin, 2009).

Field notes and memos. Incorporating the full field notes and memos serves multiple purposes in data collection. Converting field notes immediately after fieldwork is advantageous, but not always possible; I endeavored to convert field notes as soon as possible after the interview to elaborate incomplete notes and reflect on the events of the day (Yin, 2011). The conversion of field notes can also stimulate recall, evoke reminders, suggest themes, and clarify the researcher's own understanding of the phenomenon (Yin, 2011). Field note conversion can serve as form of data verification and point of initial analytical comparison, as well (Yin, 2011).

Memoing is another analytic technique used in qualitative research as a form of self-reflection and process documentation. Creswell (2007) aligned memoing with the grounded theory approach, but Yin (2011) advocated memoing for all qualitative approaches as a system for tracking ideas. The NVivo software program considers memoing "a crucial piece of the analytical puzzle" and offers several suggestions for incorporating memos into an analysis (QSR, 2012, p. 28). Memoing was invaluable during the analysis of the PDD study data as I coded the interview responses for themes, combed the findings for patterns, and modified ideas that transformed results into a case description of the phenomenon.

Issues of Trustworthiness

Rigor in qualitative research is established much differently than in quantitative research. Rigor in quantitative research is determined using internal validity, generalizability (external validity), reliability, and objectivity. In qualitative research, rigor is ascertained on the attribute of trustworthiness using credibility, transferability, dependability, and confirmability (Krefting, 1991). Credibility of the research and the researcher can be strengthened by utilizing multiple strategies throughout the research process. Yin (2011) listed several practices that can be implemented to support credibility such as long-term field involvement, rich data, member verification, rival explanations, and triangulation. Creswell (2007) added peer review, clarifying researcher bias, and external audits to this inventory of strategies. Credibility of the researcher can be strengthened by disclosing any associations with participants and research sites and acknowledging personal biases about the topic of study (Patton, 2002); as the researcher, I clarified my personal biases and affiliations in the previous section detailing my role in conducting this study. The design of the PDD study precluded long-term field involvement, but I employed member verification, rival explanations, and rich, thick description to improve the credibility of the research. After the interviews had been transcribed, I contacted the participants, if they permitted additional communication, to validate the accuracy of the themes. Rival explanations were instituted during the analysis to support or contradict my interpretations of the data. Thick, rich description of the findings enables audience members to appreciate and understand the phenomenon of study (Patton, 2002; Yin, 2011); by using thick, rich description to communicate the outcomes of my study, I can engage the readers in the contextual realities that resulted in a caregiver decision to defer their personal RDC for the RDC of their children. In this way, the readers will be helped to better understand what circumstances brought about the deferment decision and why the caregiver felt personal dental deferment was a necessary health decision.

Transferability is the term used by qualitative researchers that corresponds to external validity or generalizability of the findings to apply to other populations. Shenton (2004) asserted the responsibility to determine the transferability of findings to their particular situation falls to the audience, but the author is responsible for providing a thick, rich description of the phenomenon along with “sufficient contextual information”

(p. 69). The findings of my PDD study might not be transferable in medical deferment settings or to deferment circumstances involving adults without children. However, I endeavored to provide sufficient information for the audience to determine the suitability of the results to be applied to other situations.

Reliability in qualitative research is known as dependability and it relates to the consistency of the results when the study is replicated using the same procedures as the initial study. Several strategies exist for promoting dependability including precise documentation of procedures (Shenton, 2004), author reflexivity (Tobin & Begley, 2004), and double coding (Krefting, 1991). Strategies used for enhancing credibility and transferability also address issues of dependability; employing external audits, triangulation, peer review, and thick description of the procedures can establish the dependability of results (Krefting, 1991; Shenton, 2004; Tobin & Begley, 2004). I utilized detailed documentation of procedures, reflexivity, and double-coding to strengthen dependability of the research. By providing detailed documentation of procedures as a component of this chapter, I strengthened the dependability of the study for other researchers by enabling reproducibility that could result in similar results. Reflexivity involves the recording of the researcher’s own thoughts, perceptions, emotions, and processes as the study progresses; self-reflection through journaling and memoing provides another form of audit trail that can be used to inform or alter the researcher’s approach to the study. Double-coding involves coding a segment of the data, a four-week waiting period, and then recoding the same segment to compare results. This code-recode strategy worked well with my PDD study design, as it allowed me time to collect and/or transcribe later interviews after the initial coding of the first set of interviews. The second coding pass of the initial interviews also benefitted from potential new codes that emerged from the later interviews.

Objectivity is a central tenet of establishing methodological rigor in quantitative research. In qualitative research, objectivity is difficult due to the interactive relationship between observer/interviewer and participants; the qualitative counterpart to objectivity is confirmability, or the verification that the findings are based on the data from the participants (Krefting, 1991; Shenton, 2004; Tobin & Begley, 2004). Thomas and Magilvy (2011) considered confirmability to be achieved when credibility, transferability, and dependability are established. Additionally, strategies to achieve confirmability are similar to the prior components of trustworthiness including triangulation, external audits, and reflexivity. Shenton (2004) suggested diagramming audit trails for both the collection of data and the development of conceptual ideas as a method of supporting confirmability. I already employed several strategies for enhancing the credibility, transferability, and dependability that could apply to confirmability. Therefore, my use of audit trails and reflexivity for the other attributes of trustworthiness also improved the confirmability of the study. However, the use illustrative audit trails was implemented as a unique strategy that made use of the visual reporting features of the NVivo software program.

Ethical Procedures

After receiving Walden’s Institutional Review Board approval on April 13, 2014, (IRB approval number 04-14-14-0018593), I posted recruitment flyers at local coffee shops, libraries, and community centers. All participants were apprised of their rights as study participants through the informed consent form (located in Appendix C). Each participant signed two copies of the form, one which was kept with the study documents and one which was returned to the participant. All personal identification information was removed and participants were assigned a numerical value based on order of interview to assure confidentiality. Participation in this study was voluntary and posed no risk to the safety and wellbeing of participants. Participation in this study could have produced minor discomfort similar to that which can be encountered in daily life, such as stress or becoming upset due to the personal nature of the research subject. However, if any participant experienced stress or anxiety, they could have refused to answer the question or terminated the interview with no reprisals. A list of community mental health resources was available to the participant if requested.

All physical documents pertaining to the study are kept in a locked file box with access only by me. After five years, I will destroy all audio-recorded tapes. All electronic files are to be kept on a separate password protected USB drive also stored in the locked file box. These files and documents are to be kept for 5 years per university requirements and destroyed using the appropriate manner.

Summary

In this chapter, I described and delineated the procedures the PDD study followed to align with the research purpose. I then identified and justified the selected study design to provide the best opportunity to answer the research question. I also clarified my role in the study as observer and instrument of data collection. The methods I utilized to recruit participants, collect data during the interviews, and analyze the results were described in detail. I also illuminated several strategies that were implemented to strengthen the trustworthiness of the research, as well as presented measures that were undertaken to preserve the participants' safety and wellbeing, confidentiality, and security of data.

I will report the results of my PDD study in the next chapter. First, I will describe the characteristics of participants involved in the study. Next, I will detail the specific procedures utilized during data collection and analysis. Finally, I will present the findings from the interviews that described the PDD decision phenomenon using the participants' own words.

Chapter 4: Results

Introduction

The purpose of this chapter is to convey the results of my PDD study. I defined the previously unstudied phenomenon of PDD as the caregiver's decision to forgo their oral health for their children's oral health. For this study, I explored the PDD phenomenon by reporting the experiences of 10 caregivers who had made that decision to forfeit their oral health. The design of the qualitative case study was guided by an overarching research question as well as several subquestions aimed at delving into the motivations behind the decision to forgo their personal RDC:

How do Pinellas County caregivers make the decision to defer personal RDC in order to provide dental care for their children?

In this chapter, I will describe the demographics and characteristics of each participant. I will then delineate the process used to collect the data and analyze the results, including the specific codes and categories utilized. Next, the results of the PDD study will be presented using the words of the participants who made the dental deferment decision. Finally, I will provide evidence of the trustworthiness of the results by describing the strategies implemented to ensure credibility, transferability, dependability, and confirmability.

Demographics

The participants in my study included 9 females and 1 male, with 8 of the 10 married, 9 of the 10 white, and the ages ranged from 35 to 64. The majority of the caregivers had some form of discounted dental access either through dental insurance or a dental discount plan; the same was reported for the children. Table 1 displays the demographics for all participants.

Table 1

Demographics

Characteristic	Female (*n* = 9)	Male (*n* = 1)
Age Range		
35-44	5	
45-54	3	
55-64	1	1
Child Dental Insurance Status		
Dental Insurance	6	1
No Insurance	1	
Medicaid/CHIP	1	
Dental Discount Card	1	
Caregiver Insurance Status		
Dental Insurance	4	1
No Insurance	4	
Dental Discount Card	1	
Marital Status		
Married	7	1
Divorced	1	
Separated	1	
Race		
Asian	1	
White	8	1

Participant 1 (P1) was a married Asian female between the ages of 35-44 with one child and had dental insurance for her child, herself, and her husband.

Participant 2 (P2) was a 35-44 year old White female with three children. This participant was a surgical nurse who often traveled to third world countries for medical missions. She had dental insurance for all members of her family.

The third participant (P3) was a divorced 35-44 year old female with two children. Her children were covered by Medicaid/CHIP and she did not have insurance coverage for herself.

Participant 4 (P4) presented a unique case as a White, married, 35-44 year old dental hygienist who did not have dental insurance for her children or for herself or her husband.

The fifth participant (P5) was a 45-54 year old White, married female with one child. This participant had dental insurance for her child, but did not have dental coverage for herself or her husband.

Participant 6 (P6) was a White, married 35-44 year old female with three children. Her children had dental insurance coverage, but she did not have dental insurance for herself or her husband.

The seventh participant (P7) was a married, White female aged 55-64 with two children. This participant had dental insurance for all members of her family.

The eighth participant (P8) was a married, White male aged 55-64 with two children. Every member of Participant 8's family was covered by dental insurance.

Participant 9 (P9) was a 45-54 year old separated, White female with two children. She was the only participant who utilized a dental discount card for her family.

Finally, participant 10 (P10) was a married, White female aged 45-54 with two children. She carried dental insurance for her children and herself and her husband.

Data Collection

Data were collected from 10 participants during May and June, 2014. Each participant contacted me by phone or email and, after confirming eligibility, I scheduled a face-to-face interview at a coffee shop/restaurant, library, or the participant's home/office. The interviews lasted between 35-45 minutes which covered the introduction, informed consent form, interview, and closing. Compensation was offered and accepted by all participants; $10 gift cards from two coffee shops and two grocery stores were available at every interview to give the participants a variety of options. All participants agreed to be audio recorded and contacted a second time for member checks. All 10 participants were contacted for member checks using the same method they initially used to contact me; one additional round of communication was initiated after three days if the participant did not respond.

The interviews were recorded using a USB Audio Voice Recorder Flash Drive while I took notes on the interview guide. This method made sure a form of backup of the interview was available if the USB recorder failed during any interview. Immediately following the interview, I made detailed notes on the interview guide form. When I returned home, I uploaded the interview from the USB drive to the computer, naming each file by the participant's number of interview order. Next, I imported the audio recording into NVivo for transcription at an accessible time.

Initially, I planned to seek participants using flyers posted in community sites such as coffee shops, grocery stores, libraries, and community centers. After leaving flyers at six libraries, eight coffee shops, five community centers, and 12 grocery stores and receiving no responses, a new avenue was considered. As the primary target participant was caregivers, I decided to leave flyers at church preschools, Montessori schools, and daycare centers. Five facilities were contacted and given copies of the flyer to post. A friend of mine offered to email the same flyer to the leaders of the local Girl Scout troops with a request for sending to the caregivers of troop members. Another friend of mine put the request for participants on her church ‘prayer chain.’ After being interviewed, one of the participants mentioned her participation in the study to members of her neighborhood parents group and suggested any interested parents contact me. The first interview was conducted mid-May and by June 27th, the minimum ten participants had been reached and interviewed. A minimum of 10 participants was recruited to provide a broad range of information on the topic of PDD with the possibility of additional participants in order to reach the saturation and redundancy point. After transcribing the last four interviews, it was apparent no new themes were found, therefore reaching a point of saturation and redundancy. There was a 10-day pause between interviews with P4 and P5 possibly due to a national holiday and the end of school activities and a second 10-day pause between interviews with P6 and P7 in which no participants scheduled interviews. However, the two intervals provided me with the opportunity to begin the coding process with the early interviews while contemplating potential emergent codes from the latter interviews.

I encountered a few unusual circumstances when conducting the interviews. During one interview, the recorder stopped recording roughly two-thirds of the way through (during question seven of ten). Fortunately, I was able to glean adequate responses from the notes written during and after the interview. In one interview, the participant related more information after the interview had been concluded and the audio recorded turned off, but I incorporated that additional information into my notes as soon as reached my vehicle.

Data Analysis

The data analysis plan for the PDD study incorporated information from the coded interviews, field notes, and memos. I initially created NVivo nodes utilizing the *a priori* terms illuminated by the literature review integrating both conceptual frameworks. Three primary codes barriers, facilitators, and mediators from the Margolis et al. (1995) model were keyed into the software program. Each primary code was then divided into smaller components; for example, barrier was split into financial, personal, and structural. Finally, the three barrier components were then subdivided again into even smaller codes from the Fisher-Owens et al. (2007) model. In Table 2, the original iteration of the coding structure as well as the number of references coded are displayed. The first run through of coding employed the *a priori* codes plus a fourth code for revisit that held any coded text that did not fit into the original structure.

Table 2

Initial Coding Structure

Code	Sources[a]	References[b]
Barriers	10	221
Financial	10	53
Direct Financial Barriers	10	42
Indirect Financial Barriers	5	11
Personal Barriers	10	121
Dental Fear	7	17
Education/Occupation	2	7
Genetics & Health	7	17
Language/Literacy	0	0
OH Beliefs/Culture	10	80
Structural Barriers	9	47
Attitudes	8	32
Transportation	0	0
Work Expectations	0	0
Facilitators	7	14
Mediators	5	15
Revisit	9	62

[a] Sources = number of participants who were coded under this node.

[b] References = number of individual responses coded under that node for all participants.

After the first cycle of coding, I ran a report that created a coding summary by node for the revisit category. I reviewed each line of coded text within that node and noted the major codes that did not fit within the original coding structure. New emergent codes of insurance issues, emotional ramifications-parents, social acceptability-child, logistics, modeling/teaching proverbs, trust, and priority were added to the list of NVivo nodes and three unused nodes were removed (transportation, work expectations, and language and literacy). Any text initially coded as revisit was uncoded under that node and recoded into the new nodes as appropriate. The interviews were then reviewed using the final catalog of the codes and any text not originally coded under these terms was coded appropriately where applicable.

As a strategy for enhancing dependability, the data were double-coded; the interviews were recoded approximately four weeks after the initial coding was completed. The results of the second coding pass produced a similar number of sources and references with little variance. Three nodes did have dramatic differences in the number of references coded. Two of the recoded codes with discrepancies had a reduction in references: oral health beliefs/culture and attitudes. Careful review of the coded text revealed that in the first coding phase, I coded more short phrases within each participant response, while I coded the entire response as a single reference during the second coding phase. The one recoded node with an increase in references was priority. I reviewed the coded text for both coding passes to determine what accounted for the 50% increase in coded references. The examination of the differences indicated in the initial coding stage for this code, I coded the entire response as a single reference, most likely due to the fact there was no node for priority initially; the priority code was developed after the initial coding run resulting in a large number of references without an applicable category. During the second coding phase, the priority category was available and shorter phrases within each participant response were coded as such.

As I reviewed the codes, coded text, and field notes, I began to develop thematic concepts that embodied the ideas encompassed by the codes. Continued assessment and evaluation of the thematic concepts revealed the final thematic categories I used to analyze the participant responses. The information from the field notes yielded a few likely themes such as emotional consequences of deferment decision and trust in dental practitioners which were later revised to more suitable terms. I also utilized the memo function to record potential themes or unusual concepts and questions to revisit after completion of the primary examination. Several of the memos were merged into the emergent themes, including appearance and low priority for dental care, but a few did not mature into usable thematic categories. One concept began as a memo mother occupation–does maternal occupation factor into deferment decision? but could not be substantiated as more interviews were conducted. I perceived that the mother's occupation did not impact the deferment decision as much as the caregiver's desire to provide their child with the best possible opportunities for a healthy life did; this concept was later assimilated into emotional ramifications. Table 3 presents the conversion of code to theme as well as the description of each thematic category.

Table 3

Code to Theme Conversion

Code	Theme	Description
Direct Financial Issues Indirect Financial Issues Insurance Issues	Financial Barriers	Encompasses all obstructions with an underlying monetary basis. This includes cost of care, out-of-pocket expenses, wage loss or transportation fees, and insurance-related matters.
Oral Health Beliefs Priority Genetics/Health Dental Fear Education/Occupation	Health Perception	Comprises the participant's perception of the value of oral health care as it relates to both themselves and their children.
Logistics	Logistics	Constitutes the coordination of multiple aspects of everyday life that are involved in seeking and accessing dental care.
Attitude Trust	Personal Perception	Incorporates the participant's perception of attitude and trust towards the dental industry and from the dental professionals.
Emotional Ramification Social Acceptability-Child Modeling & Proverbs	Psychosocial	Covers the intra- and interpersonal significance of oral health status and oral health care-related decisions.

In the next stage in the analysis process, I examined the frequency of the themes as they related to the research question and subquestions. The most frequently reported themes for each research question are displayed in Table 4 with their corresponding frequencies.

Table 4

Frequency of Themes by Research Question

Research Question/Subquestion	Theme	Frequency[a]	Percentage[b] (%)	Participant Number[c]
How do Pinellas County caregivers make the decision to defer personal RDC in order to provide RDC for their children?	Health Perception	52	52	1-10
	Personal Perception	15	16	2, 3, 5-8, 10
	Financial Barriers	14	15	2-7, 9, 10
	Psychosocial Coping	13	14	1, 2, 6, 9, 10
What behavioral and environmental factors influence the PDD decision?	Financial Barriers	18	32	2-3, 5-6, 8, 10
	Logistics	16	29	3, 5-6, 8, 10
	Personal Perception	11	13	1-3, 5, 10
What experiences led participants to this decision to defer personal RDC?	Financial Barriers	22	32	1-10
	Health Perception	22	32	1-6, 8-9
	Personal Perception	16	23	1, 2, 6
How do these factors impact the participants' perception of themselves as caregivers?	Health Perception	9	43	1-3, 5-8
	Psychosocial Coping	7	33	5-8, 10
What are the participants' perceptions of personal dental health in terms of overall health?	Health Perception	53	72	1-10
	Psychosocial Coping	19	26	2-8, 10
What are the participants' perceptions of personal health (including dental) in terms of their child's health and wellbeing?	Health Perception	74	73	1-10
	Psychosocial Coping	15	15	2-3, 5-10

[a] Frequency = number of times theme was coded for all participants for each research question.

[b] Percentage = frequency counts divided by the total number of theme counts for each research question expressed as a percentage.

[c] The number assigned to the participant.

Incorporating discrepant cases into the data analysis process is an invaluable opportunity for qualitative researchers to refine original categorization of themes as well as provide further insight into what may or may not have been initially considered 'typical' or 'normal' results (Waite, 2011). In this study, I did not encounter any truly discrepant cases within the participant sample. However, discrepant aspects of participant responses were integrated into the conceptual models to provide a more complete definition of PDD. Many of the early discrepant aspects later became thematic categories as additional participant responses reflected variations with original themes selected from conceptual models.

Results

The purpose of my study was to determine what situations and circumstances led caregivers to defer their RDC to ensure their children received RDC. The 10 interview questions (see Appendix B) were developed to answer the research question and subquestions. For each research question, I have reported the most frequently recorded themes and present a few of the responses that best illustrate the selected theme.

Primary Research Question: How do Pinellas County caregivers make the decision to defer personal RDC in order to provide RDC for their children?

Interview questions 1, 9, and 10 supplied the entries for the comparative and thematic analysis to establish what factors influenced their decision to defer personal RDC to provide RDC for their children. The most frequently cited reasons were health perception, personal perception, financial barriers, and psychosocial coping.

Health Perception

Health perception was the most commonly reported factor that influenced the caregivers’ decision to put the children’s dental health over their own; all 10 participants had at least one statement coded under this theme. For example:

Participant 1 stated “because I wanted her to get used to being there” and that “we've just been taking her since she's been like 2 to get her warmed up and used to the idea.”

“I do want them to grow up with a healthy smile.” (Participant 4)

"Basically its more for just her health, I want her to know at a young age you have to keep your teeth clean, you have to take care of yourself, you know, it's part of growing up" was reported by Participant 6.

Participant 7 revealed building healthy habits was an important factor in her decision, stating "things you get them used to as a child that they'll continue doing hopefully and have good oral hygiene, especially when they were younger."

Personal Perception

The personal perception theme was developed to encompass both positive and negative attitudes toward the dental profession, as well as perceived attitude from the dental professionals. Personal perception toward the dental profession often manifested as a distrust or fear of dental services. Seven of the ten participants (P2, P3, P5-P8, and P10) noted personal perceptions from dental providers influenced their decision and others had negative personal perceptions toward the dental field from prior experiences.

Participant 2 stated, "Finding the right professional that met my needs and felt, understood my beliefs um not getting that 'slick snake-oil salesman feel' that's important."

Participant 5 echoed that sentiment, shaking her head while responding:

> A lot of dentists are just out for the money and imply more work is needed but that's not necessarily true. Can't trust dentists. It's different from when I was a kid. I got sealants for my daughter but are they really necessary?

After the interview was concluded and the recorder turned off, Participant 7 related an experience she had with a dental professional in which a member of the dental practice responded with an attitude that did shape all future encounters with the dental industry. The participant mentioned a problem she had with dental equipment (sonic cleaner) that caused a migraine. When she reminded the hygienist, the staff person grimaced and made it seem like having to use different equipment was a bother which made the participant feel horrible and not want to return to that office in particular or another office in general.

Complimentary attitudes toward the dental profession were not frequently found in the participants' responses related to dental visits for themselves with only one participant (P3) referencing her personal dentist positively, but 3 of the 10 participants (P1, P4, and P5) reported favorable attitudes toward their children's dentist.

Participant 3 mentioned her dental office reaches out to her by "[sending] me cards all the time, birthday cards, we miss you" but the finances just were not available for her to continue to receive dental care.

Participant 1 did perceive her pediatric dentist as very encouraging towards her daughter's oral health habits; she stated, "well, yeah, I mean, she's always very proud that she's doing a good job and he's a really good dentist, always really boosts her ego up you know."

Participant 4 said her pediatric dental office was "very nice and very affordable and seem to work with me."

Participant 5 related how she had "a really, really good dentist" for her children but when their insurance changed, it took her a long time to switch which increased her dental care costs since she had to pay out of pocket.

Financial Barrier

Financial barrier was the second repeatedly cited factor impacting the decision-making process with seven of the ten participants (P2-P7, P9 and P10) making at least one statement within this theme.

Participant 3 said a financial barrier was the biggest factor in her inability to access dental services for herself, questioning why dental care assistance was not covered for adults like it is for children:

> I just wish that it was, just, that if you got any type of assistance that it would be for adults as well. It doesn't make sense that kids can get it but adults can’t. It doesn’t make any sense - none, zero . . . . It would make sense if dental care was very considerably much more inexpensive than health care where everyone would be all 'oh yeah I'm going to the dentist' sure, but it’s not, it’s just as expensive, so if you can't afford health care, how do you expect someone who's an adult to afford dental care?

Participant 6 had a direct financial barrier from the insurance company her family received their medical and dental insurance through:

> I wish it was easier to get dental health insurance that didn’t, you know. One of the reasons why we opted out of the dental plan, we have a new health insurance, one of the reasons why we don’t have the dental is um the cost that goes along with it, well it’s not too much additional, its only like $30-$35 additional every month, you can’t go to the dentist for 12 months. You have to wait to see a dentist for 12 months so if I'm paying in $30 a month, by one year, I've already paid for

> an appointment. So that’s my, so if you have to go, we generally went every 6 or 12 months, it wasn't uncommon for me to go more than once a year because I was so anal, believe it or not, so anal about my teeth that I just couldn't, I can’t justify that.

Psychosocial Coping

Psychosocial coping was the last factor that regularly emerged from the participants’ responses for this research question as 50% of participants (P1, P2, P6, P9, and P10) made statements referencing the impact the emotional ramifications of their deferment decision and the desire to prevent low self-esteem from poor oral health in their children.

The other thing too it doesn’t look too good if I'm spending all this time sending them to the dentist and boy I haven't been there in a while. Um it doesn’t look good as a parent (Participant 6).

Participant 7 stated, “It is a little bit odd to stress how important it is to the kids however, we're not doing it ourselves. It’s a little awkward because we want to set a good example for them.”

Participant 2 said her son’s poor oral health issues and negative dental procedure experiences “even affected his mental health” from pain and fear.

The son of Participant 3 needed braces and did not understand why he had to have them, so she told him:

> Braces are actually part of a healthy body, I said, it's going to make it easier to care for your teeth, it's going to make it easier for you to brush, floss and not to mean you'll have a killer smile' (Participant 3).

Participant 5 said good oral health provided her children with a nice appearance, as well as prevented low self-confidence from teasing classmates. She felt oral health visits impacted overall health with:

> I think so um more - for lack of a better term - vanity thing. I would hate for her to have rotten teeth or teeth falling out or missing teeth or so. Just because when you're young, that's, people are cruel.

Many of the same themes resonated throughout the interview questions related to the five subquestions; specifically the themes of financial barriers and personal perceptions were echoed in subquestions 1 and 2 while health perceptions and psychosocial coping were prominently evident in the final three subquestions. In order to limit duplication of already discussed themes, I will only present brief descriptions of the results from each subquestion, except for logistics, the only theme not reported in the responses from the primary research question.

Subquestion 1: What behavioral and environmental factors influence the PDD decision?

Interview question 3 provided the data for the thematic analysis that described the behavioral and environmental factors that affected the caregivers' decision to defer their personal RDC. The overwhelming responses centered on financial barriers, personal perceptions toward dental professionals, and logistical issues.

Financial Barriers

Monetary concerns were an influential factor in the caregivers decision to defer personal RDC with eight of the ten participants (P2-P3, P5-P6, P8, and P10) reporting fiscal obstacles to seeking personal RDC.

Personal Perception

Of the 10 participants, five of the caregivers (P1-P3, P5, and P10) exhibited negative personal perceptions toward the dental profession which may have influenced their decision to defer their personal dental care.

Logistics

One half of the participants (P3, P5, P6, P8, and P10) encountered logistical barriers that affected their capacity to seek dental care for themselves. Issues such as waiting lists, time required to find pediatric dentists that accept certain insurances, as well as the time involved in switching dentists, and scheduling dental appointments between other activities.

> Its hard work, lot of phone work, lot of leg work and then you know providing inconsistency because you have to switch from one to another for job situation which is then "oh we don't take that insurance anymore or we don't take it anymore" (Participant 3).

For Participant 5, as a new resident to the area, it was a combination of not knowing who the good pediatric dentists were and who had reasonable prices. “I was new to the area and I don’t know anyone, have any referrals at that time when I first moved here um so finding someone was an issue and also someone I could afford.”

Participant 6 faced a similar situation after acquiring dental insurance: “So when we did obtain insurance for the kids, we had to find another good dental provider and it took a long time for me to switch.”

Scheduling was an impediment for some of the participants. Participant 6 stated, “Even in the scheduling, um sometimes it’s hard to get into the ones that do take insurance.”

While Participant 8 found scheduling the children’s dental appointments was difficult because of other responsibilities and activities. “Timing of appointments. You know between work and school and everything else.”

> It was very hard once we found a dentist, their waiting lists was quite long because they were a specialist, they did just children and um because there wasn't a lot of them in the area then, they uh had a long waiting list (Participant 10).

Subquestion 2: What experiences lead participants to this decision to defer personal RDC?

Responses from interview questions 4 and 8 furnished the information for the thematic analysis that described the experiences and situations that guided the caregiver’s decision to defer their dental care. Financial barrier, health perceptions, and personal perceptions were the most often cited themes from the responses.

Financial Barrier

Financial barrier was a prominent theme for all 10 of the participants’ responses, especially those related to why the caregivers did not seek RDC for themselves.

Health Perception

Health perception was another well represented thematic category describing why caregivers did not seek RDC for themselves with half of the participants (P1- P6, P8 and P9) reporting a fear-related statement.

Personal Perception

Three of the participants (P1, P2, and P6) had concerns with billing practices, comfort with the dental professionals, and suggesting procedures that were not medically necessary.

Subquestion 3: How do these factors impact the participants' perception of themselves as caregivers?

Participant responses from interview question 5 demonstrated the conclusions for the comparative and thematic analysis that illustrated how the decision to defer their personal dental care shaped their sense of self as a caregiver. Health perception was the most frequently reported theme within the participant responses to this question, but psychosocial coping was also highly correlated with "health perception" as caregivers justified their responses.

Health Perception

Health perception was cited by seven of the 10 participants (P1-3, and P5-8) as an important theme when participants' described how the deferment decision affected their perception of themselves as caregivers.

Psychosocial Coping

Five of the 10 participants (P5-P8, and P10) had a negative perception of themselves as caregivers because of the barriers they encountered and the effect of those experiences on their capacity to access RDC personally.

Subquestion 4: What are the participants' perceptions of personal dental health in terms of overall health?

Information from interview questions 2, 6, and 7 revealed the data for the comparative and thematic analysis to illustrate how the participants perceived the importance of dental health. Overwhelmingly, their responses to these interview questions centered on health perceptions as the primary theme indicating oral health is important to achieving good overall health. Psychosocial coping also influenced participants' responses reflecting their desire to encourage healthy behaviors and model positive health behaviors.

Health Perception

The participants may have placed oral health care at a lower priority than medical care, but all 10 caregivers (P1-P10) understood the need for good health for keeping the whole body healthy and preventing poor oral health habits.

Psychosocial Coping

Psychosocial coping was significantly perceptible in their responses with eight of the 10 participants' (P2-P8 and P10) referencing the prevention of overall health problems that have a basis in oral health status; allusions to 'healthy mouth, healthy body' proverbs and building a foundation of healthy habits that would carry through their child's lifetime were common.

Subquestion 5: What are the participants' perceptions of personal health (including dental) in terms of their child's health and wellbeing?

Interview questions 1, 2, 6, and 7 validated the information for the comparative and thematic analysis to illuminate the participants' perception of the association between health and wellbeing of their children. Again, health perceptions was the clear theme of the responses, but psychosocial coping was another significant concept the participants considered when discussing their child's wellbeing.

Health Perception

The results of the previous research question on the participants' perceptions of the importance of dental health indicated the significance caregivers gave to oral health in terms of overall health, but that same value was also apparent in the responses related to their children's wellbeing with all 10 participants (P1-P10) recording statements containing themes of oral health beliefs.

Psychosocial Coping

This theme factored prominently in the participants' perceptions of the importance of good oral health in terms of their children's wellbeing; seven participants (P2, P3, and P5-P10) referenced the importance of having good oral health habits and preventing peer teasing from poor dentition (aesthetic appearance).

Table 5 presents a summary of significant responses for the relevant thematic category within the research question.

Table 5

Summary of Results

Research Question	Thematic Category	Selected Extracts
How do Pinellas County caregivers make the decision to defer personal RDC in order to provide RDC for their children?	Health Perception	“Basically its more for just her health, I want her to know at a young age you have to keep your teeth clean, you have to take care of yourself, you know, it’s part of growing up.” (P6) “Things you get them used to as a child that they'll continue doing hopefully and have good oral hygiene, especially when they were younger.” (P7)
	Financial Barriers	“For a long time we didn’t have dental insurance for the kids. So I was paying for it, it did get very costly and of course we paid for that out of pocket.” (P6)
	Personal Perception	“Some of these providers I don’t trust them anymore, I really don’t, some of them – just, neh, no.” (P2) "So I feel like with dental, nothing’s ever like that serious, I mean I guess it could be, you know, but I feel like for some reason regular health insurance would be probably the most important” (P3).
	Psychosocial Coping	“I think so um more - for lack of a better term - vanity thing. I would hate for her to have rotten teeth or teeth falling out or missing teeth or so. Just because when you're young, that's, people are cruel.” (P5).
What behavioral and environmental factors influence the PDD decision?	Logistics	"Its hard work, lot of phone work, lot of leg work and then you know providing inconsistency because you have to switch from one to another for job situation which is then "oh we don't take that insurance anymore or we don't take it anymore" (P3). “Even in the scheduling, um sometimes it’s hard to get into the ones that do take insurance.” (P6)
	Financial Barriers	“My husband does need something and he's not done simply because of the cost. And we get a discount, and he still hasn't done it because of the cost.” (P4)
	Personal Perception	“There’s a lot of dentists out there who just try to create - I feel - create work for themselves.” (P1)

(table continues)

Research Question	Thematic Category	Selected Extracts
What experiences led participants to this decision to defer personal RDC?	Financial Barriers	"Cost. The opportunity to go to the dentist uh was used for the kids. And they needed braces, they needed wisdom teeth out, they needed, you know." (P10)
	Health Perception	"So not only was I not looking forward to the costs, but I also was not looking forward to the pain. So I'm a little negligent when it comes to my own dental care, I mean I have, I also had a bad, I've had 2 bad experiences with dentists, very bad experiences (P9).
	Personal Perception	“Finding the right professional that met my needs and felt, understood my beliefs um not getting that ‘slick snake-oil salesman feel’ that's important.” (P2)
How do these factors impact the participants' perception of themselves as caregivers?	Health Perception	“I mean I know I'm doing the right thing by getting them there regardless.” (P6) “But when you financially have to choose between you and your children, the children come first. (P7)
	Psychosocial Coping	“It is a little bit odd to stress how important it is to the kids however, we're not doing it ourselves. It’s a little awkward because we want to set a good example for them.” (P7)
What are the participants' perceptions of personal dental health in terms of overall health?	Health Perception	“I just think that having all of your teeth is a good thing.” (P1)
	Psychosocial Coping	“I think a healthy mouth leads to overall health, any pain and discomfort a child has, you know, affects their overall wellbeing.” (P4)
What are the participants’ perceptions of personal health (including dental) in terms of their child’s health and wellbeing?	Health Perception	"I think it does help them um, choose better foods, they know the sugary ones are not so good for their teeth. Um so that of course enters/plays into their health. That is completing your health - you need to go to the doctor, you need to go to the dentist too it's part of your body. Take care of every aspect of your body." (P6) “When you start having problems with your mouth I know from other people, past experience then they start having dietary issues and other things also.” (P1)
	Psychosocial Coping	"I think so um more - for lack of a better term - vanity thing. I would hate for her to have rotten teeth or teeth falling out or missing teeth or so. Just because when you're young, that's, people are cruel." (P5)

Issues to Consider

Several participants brought up a number of issues that could have had a negative mediating effect on their decision to seek dental care for themselves, as well as to continue seeking dental services for their children. Concerns related to effective dental preventive procedures, inability to cultivate a trusting relationship with dental professionals, and an inadequate understanding of sustained dental necessity may have influenced the participants' responses. Some would say this shows a lack of education or inaccurate beliefs about health prevention methods, but instead, these responses demonstrate where communication breakdowns and overabundance of conflicting data have obfuscated the problem. These issues will be further elucidated in Chapter 5 in Health Perception (fluoridation), Personal Perception (trust) and Implications (provider-patient communication).

Evidence of Trustworthiness

Credibility

I implemented several strategies within the development and data collection process to ensure a high degree of trustworthiness was established. To strengthen the credibility of the study, I disclosed any biases or associations with participants and research sites; utilized member verification to authenticate the themes discovered in participant responses; instituted rival explanations in the analysis; and used thick, rich description of the findings. As stated previously, I have not personally been impacted by PDD and have no affiliation with any dental associations or university research sites. Within four weeks of the completion of the data analysis stage, I had contacted each participant in the same method they initially contacted me to schedule a follow-up meeting to review the key themes identified through participant responses to the interview questions. Three of the participants elected to meet face-to-face, three participants requested the results via email, and four participants did not respond to two separate requests for the member check meeting. The three in-person meetings lasted less than 10 minutes each and the participants had similar responses to the results. They all agreed the themes I culled from their responses to the interviews were appropriate and met expected parameters of the overall thematic results. All three were curious if the results were what I expected and whether the results provided any new insight into the PDD problem; I explained their results facilitated the development of the emergent themes that was not gleaned from the literature initially. Two of the participants were astounded to find some of situations they encountered and experiences they related during the interviews were not unique to their circumstances. Rival explanations were researched and incorporated to account for differences in responses as compared to original iteration of the combined conceptual models. I also used thick, rich description of the data analysis outcomes to answer the research questions.

Transferability

I previously stated the results from the PDD study may not be transferable to situations involving medical deferment or adults without children. However, using thick, rich description to illustrate the dental deferment experiences of the participants may present a suitable account of the phenomenon so that readers could use their best judgment to apply the findings to other situations.

Dependability

Strategies designed to improve dependability of the results of my PDD study included detailed documentation of procedures, author reflexivity, and the use of double-coding, as well as many of the strategies utilized for enhancing credibility and transferability. I delineated the steps taken to recruit participants, collect data, and analyze the data in the previous chapter and thoroughly noted any deviations in this chapter; the exact process employed to code the interviews, field notes, and memos, along with the progression of emergent thematic categories, was also meticulously recorded above. Author reflexivity involves record-keeping the conceptual development and knowledge construction the author uses throughout the research process (Houghton, Casey, Shaw, & Murphy, 2013). As I moved through the interviews, the transcription and coding of the interviews, and analysis of the resultant thematic codes, a reflective journal (in addition to the field notes and memos) was used to catalogue the thought-process. Double-coding was instituted to take advantage of the possible length of time needed to collect data from 10 participants. Interviews from early participants (P1, P2, P3, and P4) were coded once after transcription was complete and again approximately four weeks later while the final interviews (P5, P6, P7, P8, P9, and P10) were conducted, transcribed, and coded. The second set of interviews was recoded approximately four weeks thereafter. The double-coding process compares the results from the initial round of coding with coding categories and knowledge growth attained during analysis and synthesis.

Confirmability

Confirmability can be achieved when researchers establish credibility, transferability, and dependability because many of the strategies implemented to enhance those components of trustworthiness. On top of the strategies of text-based audit trails and author reflexivity journaling I employed, I also created diagrammed audit trails of data collection and the development of thematic concepts. Figures 1 and 2 display the visual progress of the collection of data and evolution of conceptual ideas, respectively.

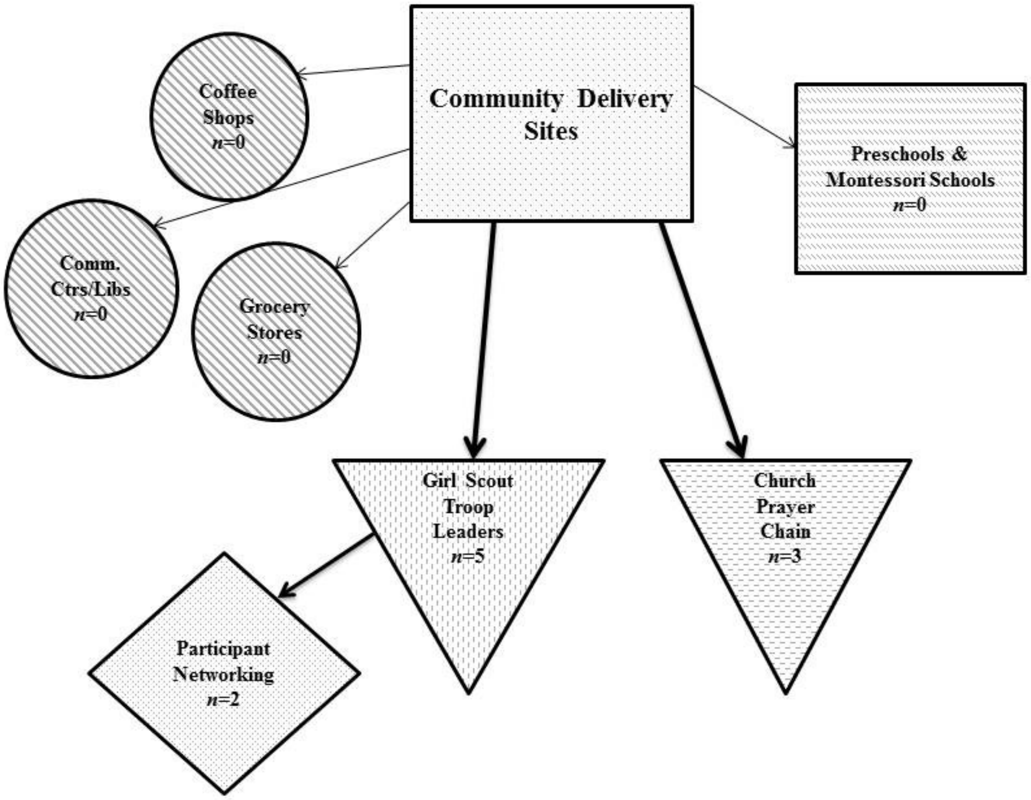

Figure 1. Data collection process.

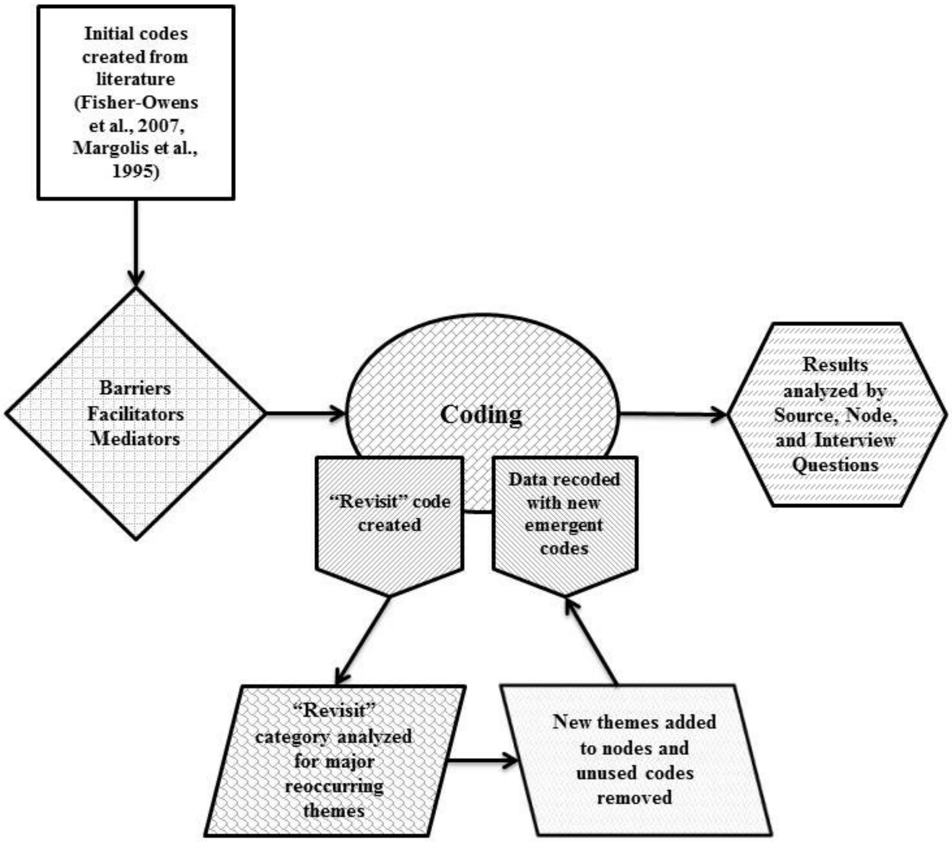

Figure 2. Evolution of conceptual ideas.

Summary

The results of my PDD study revealed the *health perceptions* of caregivers had a major impact on their decision to seek RDC for their children while *financial barriers* and *personal perceptions* influenced their capacity to seek RDC for themselves. Additional influencing factors such as *logistics* and *psychosocial coping* also impacted the decision-making process.

In the next chapter, I will interpret the findings of the PDD study as compared to the conceptual frameworks and literature discussed in Chapter 2. Next, I will describe the limitations to trustworthiness that arose from implementation of the study. I will then suggest avenues of future research based on the strengths and limitations of the current study. Finally, I will illuminate the implications the PDD study has on multiple levels social change, the methodological and empirical repercussions of the PDD findings, and recommendations for the field of oral health.

Chapter 5: Discussion

Introduction

The purpose of my PDD study was to determine the confluence of factors and circumstances that led caregivers to defer their personal RDC for their children's dental care. As this phenomenon had been largely ignored in the literature and the association between poor oral health and increased rates of certain chronic diseases has become a popular, yet unconfirmed, research topic (Cullinan et al., 2009; Lockhart et al., 2012), the timeliness of this research study was apparent. Using a qualitative case study design, I interviewed 10 participants to ascertain why RDC for their children was important to them, what situations they encountered when seeking RDC for their families, and how those situations affected their capacity to access RDC for themselves. The results of the interviews uncovered the conditions that preceded the caregivers' deferment decision and the consequences of that decision.

Findings from my study indicated *health perceptions, financial barriers, personal perceptions,* and *psychosocial coping* were essentially accountable for caregivers' decisions to defer their personal RDC for their children. Caregivers wanted to provide their children with the best possible opportunity for a healthful life which included RDC, yet financial barriers related to cost, out-of-pocket expenses, and insurance issues impeded their capacity to access RDC for all family members. Logistical problems and the desire to prevent low self-esteem or low self-confidence in their children due to poor oral health or dental aesthetics motivated caregivers to place their personal dental needs below their children's needs. Therefore, participants were prioritizing who received medical/dental services with the limited family health care expenditure dollars available. Finally, the consequences of health care prioritization and inability to display proper oral health behavior modeling can affect the emotional state of caregivers, as reported by study participants.

Interpretation of Findings

The purpose of my study was to determine what elements caregivers considered when making the decision to defer their personal RDC for their children's dental care. As PDD is a fundamentally novel research topic, very little literature directly related to the topic could be found. The literature review discussed in Chapter 2 revolved around the two conceptual models utilized to develop the framework for this study. The models provided an appropriate lens for viewing the findings as well an adequate base for coding the responses. The Margolis et al. (1995) model supplied the broad categories (barriers, facilitators, and mediators) and the resultant subcategories of financial, personal, and structural barriers that became the central classification system. The Fisher-Owens et al. (2007) model furnished the distinct codes within each of these categories and subcategories initially selected for coding.

However, the conceptual models did not present the whole picture of the dental deferment phenomenon. This could have been due to the fact that both the Margolis et al. (1995) model and the Fisher-Owens model were not strictly developed for the caregiver dental deferment issue; the Margolis et al. (1995) model was created for general health care access concerns for vulnerable, uninsured groups and later adapted for children's access issues and the Fisher-Owens et al. (2007) model was created for children's oral health outcomes. Several themes emerged from the participants' responses that had not been considered by either model: emotional ramifications of parental health care decisions, oral health status (and aesthetics) on the social acceptance of children, and the prioritization of care between and among family members. The developers of the Fisher-Owens et al. model (2007) did briefly mention a child's self-esteem and parental coping skills as protective factors for oral health behaviors. The authors also discussed the social support of peers being associated with good health but only as a side note that social isolation can lead to poor health habits that impact oral health, such as tobacco use (Fisher-Owen et al., 2007). The developers of the Margolis et al. model (1995) incorporated several of the themes that were not found to influence the decisions of my participants' including transportation and language/literacy.

I will compare the findings of my study to the literature I reviewed in Chapter 2 as well as use additional research to confirm, disconfirm, or extend the knowledge base of PDD. The five themes of my findings—financial barriers, health perception, logistics, personal perception, and psychosocial coping—will serve as broad categories of organization with the individual conceptual codes from the Fisher-Owens et al. (2007) model utilized to further subdivide and elucidate how my findings support, and are supported by, research on each topic.

Financial Barriers

Direct financial barriers. The findings were consistent with literature demonstrating financial barriers and insurance issues are a substantial impediment to seeking care, both medical and dental. In a 2012 statement by the American Dental

Association (ADA), financial barriers to dental care access were considered a fundamental source for the declining rates of dental utilization. In a more recent research brief from the ADA, Wall, Nasseh, and Vujicic (2013) reported a slight decline in cost as a barrier to dental care for non-elderly adults, but caution that relative to other services within the healthcare sector (prescriptions, eyeglasses, and mental health care), dental care costs continued to be much higher. A study by Schoen, Osborn, Squires, and Doty (2013) compared the access and affordability to medical care in the United States and 10 other countries and found U.S. respondents more likely to report forgoing medical care, paying high out-of-pocket fees, and having unpaid medical bills. While this study primarily focused on medical care, the authors reported 33% of U.S. participants had forgone dental visits for 12 months and 27% of U.S. respondents had not visited the dentist in the last 24 months (Schoen et al., 2013). Isong et al. (2010) found children of parents who deferred their dental due to cost were 12.5 times more likely to have their dental care deferred due to cost. The results of my PDD study indicated many caregivers place a higher value on dental care for their children than on themselves.

Insurance issues. The findings from this study uncovered the impact that insurance problems may have on access to and receipt of RDC. A study conducted by DeVoe, Tillotson, Angier, and Wallace (2014) on predictors of children's insurance discontinuity found a parent's insurance coverage status was a significant predictor of a child's insurance coverage gap; this suggested securing continuous insurance coverage for parents will reduce interruptions in the children's insurance coverage. However, an earlier study by DeVoe et al. (2007) indicated being covered by insurance cannot guarantee utilization of health care services. Sixty percent of this study's participants had some form of dental insurance and had not been to the dentist in over 12 months, yet made sure their children had seen a dentist during that period. The findings from this study demonstrated caregivers are seeking alternative options (personal dental deferment) to ensure their children have healthy teeth. Sixty percent of the participants also reported issues with insurance coverage ranging from needing to switch providers each time insurance coverage changed, uncertainty with coverage of procedures, and additional out-of-pocket costs for services. Research by Jones et al. (2013), Schrimshaw et al. (2011), and Wallace and MacEntee (2013) recorded similar responses from their participants in regards to additional fees and non-coverage of services.

Health Perception

Health perception appeared to play an important part in the decision to defer personal dental care for the participants in my study; oral health beliefs, a genetics/health factor, and health priority constructively influenced their decision to seek RDC for their children, while dental fear may have affected the decision to defer their personal RDC.

Oral health beliefs. Several studies reviewed the impact of oral health beliefs on care-seeking (or lack of seeking) behaviors. Systematic reviews by de Castilho, Mialhe, Barbosa, and Puppin-Rontani (2012) and Hooley, Skouteris, Boganin, Satur, and Kilpatrick (2012) reported parental oral health knowledge, attitudes, and beliefs influenced their children's oral health through not only the child's oral health status, but nutrition choices, oral health behaviors, dental needs, and attitudes toward dental hygiene. Vermaire, van Exel, van Loveren, and Brouwer (2012) found parents with greater oral health knowledge who placed a higher importance on their children's oral health were more willing to invest time and money into their child's oral health. These studies support the findings from my study as the participants' responses demonstrated a strong credence in oral health beliefs as well as a willingness to invest the time and money by deferring their personal dental care to secure good oral health for their children.

Genetics/health. Several participants highlighted a genetics/health component of oral health that influenced their decision to seek RDC for their children, specifically to prevent oral health problems experienced by someone they knew. Many participants also referenced the association of oral health to overall health despite not knowing the exact nature of the relationship; responses included allusions to good oral health as necessary for proper diet/nutrition/eating, teeth as an indicator of physical health, and the body as a whole system in which good oral health equated to good overall health. Fluoridation was also referenced a few times by participants with concerns in regards to the safety of fluoridation for the participant's children. In Pinellas County, fluoridation is a highly contentious political topic that has been thrust to the forefront for the last few years with a wealth of conflicting information debated often. Pinellas County began fluoridating water in 2004 but by the end of 2011, Pinellas County residents had rejected the practice amid new research on possible harmful effects. The practice of water fluoridation was reinstated in 2013 yet is still a political stance for many electoral candidates (Marrero, 2014a, Marrero, 2014b).

Anti-fluoride advocates cite research of a meta-analysis decrying the use of fluoride due to lowered intelligence (Choi, Sun, Zhang, & Grandjean, 2012), the Environmental Protection Agency (EPA) Headquarters' Union of Scientists opposition to water fluoridation (Hirzy, 2000), and vast percentage of Western European countries that do not fluoridate their water (Mannina, Morgan, Murphy, & Trinh, 2013) as evidence against the fluoridation of the Pinellas County water supply. Pro-fluoride supporters rely on 60 years of data on dental caries reduction, the Centers for Disease Control and Prevention's recommendation for fluoride use, and the EPA's and CDC's continued monitoring and modification of appropriate fluoride safety levels to back their claim for water fluoridation (CDC, n.d.a; Griffin, Regnier, Griffin, & Huntley, 2007; IOM, 2011). However, these two sides are discussing two different chemicals—sodium fluoride and fluorosilicic acid. Prescription-grade sodium fluoride is used in toothpastes, mouthwash, and the professionally applied dental varnishes and gels; fluorosilicic acid (also listed as hydrofluorosilicic, hexafluorosilicic, hexafluosilicic, and silicofluoric acid) is the industrial waste byproduct of phosphate fertilizer and is considered a hazardous material by the National Institute for Occupational Safety (CDC, 2009). According to the CDC, 11 of 13 water systems in Pinellas County use fluorosilicic acid to fluoridate the water while the remaining two water systems have naturally occurring fluoride concentrations below optimal levels (CDC, n.d.b). With the two sides of this controversial topic continuing to push their agenda—as well as the repeated change of course between 2011 and 2013 within the county's water system—there is no surprise that Pinellas County caregivers have concerns about the safety of fluoride. This leads into the second issue to consider: the communication breakdowns between dental professionals and caregivers discussed later in this chapter.

Priority. Mediators can positively or negatively influence the caregiver's decision to seek dental care for their children or themselves and may even sway the decision toward personal dental deferment. A hierarchy of care was apparent in the participants' responses as caregivers placed a higher priority on medical care over dental care, their child's dental care over their own care, and their own medical care over their personal dental care. Isong, Dantas, Gerard, and Kuhlthau (2014) found competing priorities compelled participants in their study to place their children's dental care at a lower priority; the authors did target low socio-economic, vulnerable populations which may explain why other responsibilities rated higher than the children's RDC (Isong et al., 2014). However, in the Isong et al. study and my study, participants found it necessary to prioritize receipt of care due to financial constraints. Research by Karaca-Mandic, Yoo, and Sommers (2013) indicated the recent economic recession led to significantly reduced out-of-pocket spending for adults suggesting parents were reducing personal health care spending "to maintain their prior level of spending on services for their children" with a large portion of those reductions in dental care utilization and prescription drugs (p. 1058). In a National Bureau of Economic Research Working Paper by Monheit, Grafova, and Kumar (2014), the authors discussed the shift in health care spending priorities during times of economic shock, realized or anticipated, and income- or employment-related loss, with examination of medical expenditure data. Their findings indicated a repriorization of health care spending dollars toward the child following an income or employment shock in both single-mother and two-parent families except in single-mother families with an employment status change (loss) where health care spending dollars are shifted toward the mother (Monheit et al., 2014). Although no hypotheses were suggested to account for this situation, that shift away from the child could be due to the child's enrollment in public insurance in which the health care costs are absorbed by state or federal programs. A study by Kenney, McMorrow, Zuckerman, and Goin (2012) analyzed 10 years of medical expenditure data that revealed nonelderly adults were more likely to report unmet dental needs and had delayed care due to cost and/or noncost reasons in 2010 as compared to 2000; this held for privately insured, publicly insured, and of course uninsured nonelderly adults (Kenney et al., 2012). The authors did report that by the end of 2010 children were more likely to have seen a dentist as compared to adults but no information on the relationship between the adults and children was given, therefore it is unknown if the adults were prioritizing their personal health care lower than the children. However, the research from Isong et al. (2014), Karaca-Mandic et al. (2013), and Monheit et al. (2014) suggests parental deferment of health care needs could be a plausible explanation.

Dental fear. The impact of parental dental fear and anxiety on the child's dental utilization was investigated in several studies, most often associated with increased dental fear in children, missed dental appointments, and higher rates of dental caries (Goettems et al., 2012; Smith & Freeman, 2012). However, the findings from this study indicated dental fear was only an impelling element in the caregivers decision to defer their personal RDC and did not result in delayed or missed treatment for their children. In fact, one participant (P1) who professed her dental fear described taking her child to the dentist as soon as possible to get her used to going and prevent dental fear in her child.

Logistics

Logistics. Logistical issues were a barrier for many participants in this study; time spent locating pediatric providers and/or providers that accepted a specific insurance, scheduling appointments between other responsibilities, and long waiting lists impacted the amount of time and effort caregivers were able to spend on seeking dental care for themselves. A 2013 study by Logan, Guo, Dodd, Seleski, and Catalanotto on the practice characteristics of Medicaid-participating dentists in Florida revealed some surprising information—pediatric dentists reported being significantly busier than general dentists who treated children, pediatric dentists were more likely to participate in Medicaid than general dentists who treated children, general dentists who treated children and reported being not busy enough or busy but not overworked were less likely to participate in Medicaid, and 20% of pediatric dentists participating in Medicaid said they might drop in the future (Logan et al., 2013). Although in my study, only one participant's children were enrolled in Medicaid, the percentage of Florida pediatric dentists participating in Medicaid and reported being significantly busier may explain why parents of non-Medicaid enrolled children are reporting long wait times. Participants in the Lewis et al. (2010) study also reported long wait times and difficulties finding providers who accepted their insurance which aligned with the logistical complications described by participants in my study.

Personal Perception

The personal perception theme covered the participant's perception of attitude and trust towards the dental industry and from the dental professionals. While the majority of the participants expressed a negative attitude toward the dental profession and a mistrust of dental professions, my findings are similar to results of studies on the same topics.

Attitude. Negative attitudes toward the dental profession were apparent in many of the participants’ responses; these negative attitudes may have developed from a previous adverse dental care event as many of the participants referenced prior bad experiences during dental services. Research has indicated attitudes toward dental care can influence a person’s preventive dental behaviors (Syed, Bilal, Dawani, & Rizvi, 2013) and a parent’s attitude toward dental care can influence child’s attitude toward dental care (Vanagas, Milašauskienė, Grabauskas, & Mickevičienė, 2009). According to the findings of this study, the participant’s negative attitude may have been one of the factors influencing their preventive dental behaviors (decision to defer RDC, lower priority given to dental care, and distrust of dental profession) but other factors such as oral health beliefs and psychosocial development of their children demonstrated a desire to make a better, non-emotional decision by placing a higher priority on their child’s dental care than their own feelings.

Trust. Trust was a factor exhibited by the participants that became a mediating factor in their decision to seek RDC for their children (constructively) and defer their personal RDC (destructively). Similar to attitude, trust and distrust may have partly originated from prior dental experiences, a lack of communication between dental professionals and patients, or unfamiliarity with the benefits of preventive dentistry that continue to shape the participants interactions with dental providers, resulting in a questioning of the providers' treatment recommendations. Dyer, Owens, and Robinson (2014) found trust in dental providers was influenced by prior negative experiences, but could be mediated by a positive interpersonal relationship with the provider. The results also indicated patients with a "consumerist" view tended to be less trustful than others; the authors defined the consumerist perspective as a tendency "to emphasise the patient choice, costs and convenience of treatment provided" (Dyer et al., 2014, p. 172). In today's fiscally-conscious atmosphere, a consumerist perspective may be a necessity, thereby requiring most patients to approach any relationship where a power inequity may exist with a bit of skepticism and mistrust until an affirmative provider-patient interaction can be established. A study by Sbaraini, Carter, Evans, and Blinkhorn (2012) indicated trust was highly valued in the dental provider-patient relationship and led to more open, respectful communication between both parties. Participants in the Sbaraini et al. (2012) study acknowledged having a dental provider who "respected their views and concerns" advanced their dental prevention education and improved their compliance to preventive dental care recommendations (p. 10).

Psychosocial Coping

Psychosocial coping incorporates the intra- and interpersonal significance and consequences of oral health status and oral health-related decisions. Social acceptance of the child motivated the caregivers to seek RDC for their children; however, the decision to defer their RDC had emotional ramifications on half of the participants.

Social acceptance-child. Research has demonstrated malocclusion and dental deformities can negatively impact the psychosocial development of a young person (Scapini, Feldens, Ardenghi, & Kramer, 2013; Scheffel et al., 2014; Tessarollo, Feldens, & Closs, 2012). A study by Seehra, Fleming, Newton, and DiBiase (2011) indicated an association between adolescents with untreated malocclusion and a higher prevalence of peer victimization; lower general self-esteem, lower self-esteem related to appearance, lower athletic competence, and lower social competence were reported by bullied participants with malocclusion compared with non-bullied participants (Seehra et al., 2011). The caregivers of my study felt strongly that preventing low self-esteem, low self-confidence, or bullying due to poor oral health was a significant motivator in seeking dental care for their children. Several participants also mentioned improving physical appearance, or at least reducing visual oral malformations, as an influencing factor in their decision to seek RDC for their children over their personal RDC.

Emotional ramifications. The participants' decision to defer personal RDC had negative emotional consequences on the perceptions of themselves as caregivers. Research on caregiver decision-making is extensive, but very little could be applied to the findings of my study as related to the emotional consequences after the deferment decision was been made. However, there is research on the impact of decision-making on surrogates (Wendler & Rid, 2011), decision-making stress by family-caregivers of children with genetic diseases (Weng et al., 2010), and parental responsibility to their child related to end-of-life decisions (de Vos et al., 2014) that could provide insight into post-decision support. While the outcome of the PDD decision may not result in the loss of life, the decision to defer personal RDC can have a negative emotional consequence that coping strategies learned from caregivers dealing with end-of-life or terminal illness management decisions that could be applicable. In a study by Stewart, Pyke-Grimm, and Kelly (2012) the emotional toll treatment decisions had on caregivers of children with cancer despite knowing they made the right decision was described; a similar negative emotional ramification of their decision to defer personal RDC was experienced by the participants in my study.

Limitations

In Chapter 1, the limitations to trustworthiness of this study were illuminated for discussion and clarification of measures to address the limitations. Scientific rigor is the gold standard for researchers to attain during design and implementation of their study. In qualitative research, there are four components of trustworthiness that are utilized to enhance scientific rigor (Krefting, 1991; Thomas & Magilvy, 2011). I implemented multiple strategies for improving the trustworthiness of this study through delineating in detail the implementation process, reporting rival explanations, utilizing member checks and audit trails, and bounding the case within time and place. One limitation of this study was lack of triangulation to enhance credibility, dependability, and confirmability, as multiple kinds of data sources were not investigated to confirm the findings. However, I interviewed 10 separate participants about their experiences with the phenomenon (Creswell, 2009), personally interviewed and audio recorded the interviews (Yin, 2011), and implemented additional strategies, such as rival explanations, in place of triangulation to support the trustworthiness of the study. A second limitation to the study could have been the introduction of bias as the researcher was used as a data collection instrument. To reduce the possibility of investigator bias, I clarified my personal background and experience with the phenomenon (Creswell, 2009; Yin, 2011), strived to develop rapport with participants to encourage comfort in discussing the personal nature of the phenomenon (Patton, 2002), and maintained a self-reflective process throughout the course of this study (Karnieli-Miller et al., 2009). Finally, a third limitation could be that that the qualitative questions were not pilot tested in a sample similar to the one of the main study, to determine if the intent of the each question is clear, and to potentially revise the interview guide in terms of comprehensibility and wording. However, I tried to minimize the effect of this limitation by confirming the validity of the themes as much as possible, as described in detail in previous sections.

Recommendations

To the best of my knowledge, this is the first study on the PDD phenomenon. One recommendation for future research would be replicating this design with the same participant criteria to validate and further explicate the factors influencing the PDD decision. Historically, vulnerable and underserved populations, including racial and ethnic minorities, have been underrepresented in oral health research (IOM & NRC, 2011), but Healthy People 2020 objectives were developed to reduce oral health disparities in vulnerable and underserved populations (HHS, 2011). The majority of the participants in my study were White, middle-class, female, and married, but the PDD decision may be influenced by different factors to different degrees in diverse population groups. Future iterations of studies on this phenomenon should recruit participants from these groups. Even as more states support marriage equality and access to health insurance benefits are increasing for lesbian, gay, bisexual, and transgender (LGBT) parented families, research indicated LGBT families continue to report some economic disadvantage (Gates, 2013). Additional studies should focus on incorporating LGBT caregivers into the study sample. Finally, while 90% of participants in my study were female, the impact of PDD in single-father families should also be considered.

Three factors identified by the conceptual frameworks were not found to have an impact on the deferment decision in my participant sample: transportation, workday expectations, and language/literacy. Participants in the Ahn et al. (2011), Curtis et al. (2007), and Kelly et al. (2005) studies reported transportation barriers (among other factors) impeded their access to dental services. Since most of my participants were middle-class and married, access to reliable transportation may not have been an issue. Workday expectations were not found to be an issue with my participants; however, as part of a marital unit, my participants might not have considered the capacity to exchange responsibility for the child's medical/dental appointment coverage with their partner as a hindrance, but as a form of family support (facilitator) or as a demonstration of placing the child's health first (priority). Language and literacy were also not found to influence my participants' deferment decision; although I specifically recruited participants fluent in reading, speaking, and comprehending English which could have reduced the possibility that language would have been a barrier for my participants. Still, low health (including oral health) literacy is not strictly confined to people with lower levels of education; terminology and nuances specific to oral health professions may hinder comprehension even for people with higher levels of education (IOM, 2004). Low oral health literacy may have influenced my participants' understanding for the need of certain preventive strategies, in spite of the knowledge and awareness of good oral health practices they instill in their children. Future research into these three topics could determine if those factors truly have no impact on the deferment decision or if my participant sample was anomalous.

I found it difficult to recruit participants without the use of gatekeepers. Cultivating relationships with gatekeepers of target populations could improve recruitment efforts. Parent-Teacher Associations, community organizations, religious organizations, and child recreation/activity groups could serve as entry points into the target population. In future studies on PDD, researchers should seek to foster rapport with community liaisons to encourage participation within diverse populations.

With direct financial barriers a primary factor influencing PDD, future research should focus on the impact the Patient Protection and Affordable Care Act (ACA) of 2010 has on the PDD decision. The ACA mandates dental care for children, but leaves dental care for adults as optional with dental benefit coverage available through Medicaid (potentially limited and dependent upon individual state) and state health exchanges (Vujicic & Nasseh, 2013). Kenney et al. (2012) suggested the availability (loosely defined) of dental care benefits through health care reform is “not likely to dramatically improve access to dental care for adults” (p. 906). With oral health for children an “essential health benefit” (CMS, 2013), family health care dollars could be used for adult dental care; however, with Medicaid and health insurance exchange subsidies eligibility-based on income, combined parent income could push families into brackets with higher premiums, thereby diminishing family health care dollars for dental care. Additionally, fluctuations in income could also result in insurance provider transitions which may lead to health care provider changes (Sommers & Rosenbaum, 2011). Frequent switching of health care providers could impact the capacity to develop a synergistic patient-provider relationship leading to a reduced trust in provider, negative attitude, and poor adherence to treatment plans (Dovidio & Fiske, 2012; Röing & Holmström, 2012; Syed et al., 2013).

Implications

Social Change

The results of this study demonstrated that caregivers were willing to sacrifice their personal dental care, despite awareness of the association between poor oral health and poor overall health, in order to provide their children with the best opportunity to have a healthy life. The Healthy People 2020 objectives for oral health include the need to increase the proportion of adults receiving RDC in the last 12 months (HHS, 2011). Findings from this study indicated oral health beliefs, cost, negative attitudes, and health care prioritization have a significant impact on family health care decisions. Identification of the specific factors that influenced the PDD decision indicates where policy changes and practical interventions should be focused. As insurance issues, out-of-pocket fees, and affordability of dental services were a few of the specific financial barriers mentioned by my participants, potential actions for eliminating these fiscal obstacles include extending Medicaid coverage to adults, reducing copays and deductibles, and reincorporating dental insurance into medical insurance. Removing financial barriers may increase the number of caregivers accessing RDC for whom the PDD decision was entirely cost-related, and thus eliminating the need to prioritize allocated family health care dollars, but practical interventions need to focus on reducing negative attitudes and mistrust caregivers expressed regarding the dental profession. Dyer, Owens, and Robinson (2014) found “positive experiences, related to interpersonal interaction and a sense of being cared for” (p. 172) can mitigate a loss of trust in the dental profession. Rebuilding a trustful, mutually beneficial association between dental providers and patients will take a concerted effort on both sides of the relationship. The positive social change implications of this study include increasing the proportion of adults receiving RDC yearly through development of targeted interventions that increase caregivers’ access to and utilization of dental care services that support the strategies implemented to achieve Healthy People 2020 objectives. By removing or mitigating the financial-, personal-, and structural barriers, as well as destructive mediators that negatively affect the dental care decision-making process of caregivers, the need for the PDD decision will be eliminated and caregivers can obtain RDC and improve their oral health status.

Implications for Research and Theory

Although to the best of my knowledge, this study is the first of its kind to determine what factors influenced the decision-making process that resulted in PDD, the findings could have implications in the research and the theoretical construct of dental deferment in public dental health. Using a qualitative case study approach to determine what socioecological determinants affected caregivers’ decisions to defer their personal dental care culminated in a rich description of the myriad of dynamics involved in that decision. The findings indicated lack of oral health knowledge is not the reason caregivers are not accessing RDC for themselves; moreover, oral health beliefs were the driving force behind the importance of seeking RDC for their children while financial barriers (including insurance issues), prior negative experiences, and the 'child first' parental inclination prompted the caregiver deferment decision. Methodologically speaking, quantitative research may not have been able to conceive the full list of possible influences prior to conducting the study. Furthermore, the other qualitative research methods could not have provided the comprehensive range of information the case study approach was able to draw from the 10 participants. In fact, neither of the two conceptual frameworks selected for design of this study were able to predict each potential element that produced PDD decision. As an exploratory study, I was able to benefit from the open-ended nature of the interview questions from multiple participants to elicit the array of factors influencing dental care decisions used to develop the rich description of the PDD phenomenon.

Next, the findings from this study indicate that caregivers should be uncoupled from the designation of adults in research to determine the specific factors that influence the health care decision-making process of families, as I suggested in Chapter 1. Health care decisions made by adults with children are influenced by the competing priorities and interaction of a myriad of determinants that are not experienced or considered by adults without children; the frequency of *priority* (health perception)*, emotional ramifications* (psychosocial coping)*,* and *social acceptance-child* (psychosocial coping) in the thematic analysis would not have been uncovered in health care decision determinants of childless adults. Caring for a dependent child does factor into a caregiver’s decision when allocating the decreasing availability of family health care dollars, as evidenced by the proportion of the participants who described the lack of funds available for themselves after placing a higher priority on the wellbeing of their children. As pointed out in several places in my study, strictly comparing adults to children within research—whether comparing utilization rates or access issues—may not provide the whole picture when the target population is caregivers. Identification of the precipitating factors to the PDD decision may enable public health professionals to develop interventions that accurately target those factors to effectively increase the proportion of caregivers who may have been overlooked in previous dental health promotions.

As mentioned above, neither of the two conceptual frameworks could provide the complete picture to illuminate the factors influencing the PDD phenomenon. The use of both the frameworks together was able to produce a solid foundation as the basis for the literature review and list of *a priori* codes, as well as an overall organizational structure for the analysis and interpretation process. However, a few themes that emerged from the participants’ responses were not discussed within either framework yet were instrumental in presenting an accurate description of the PDD phenomenon. One theoretical implication of this PDD study would be for future researchers to incorporate additional theoretical or conceptual frameworks to explain the emergent themes, such as theories of emotion or parental altruism, that are not considered by the Fisher-Owens et al. (2007) model and the Margolis et al. (1995) model.

During this study, I developed a better understanding of why caregivers would defer personal dental care, yet continue to access dental services for their children. My study uncovered an emotional aspect to the deferment decision that had not been considered by the conceptual models selected as the framework for the study. Yet, Johnson, Chestnutt, and Smith (2010) asserted emotion is integral to decision-making, consciously and subconsciously. For both parties in the patient-provider relationship, the association of mood and emotion can affect the decision-making process and previous experiences can influence current and future feelings about a subject (Johnson et al., 2010). Knowing and understanding that emotions can and will have an impact on decisions and the decision-making process is fundamental when considering future research into, and practical applications of, the PDD phenomenon.

Recommendations for Practice

Fifty percent of the study respondents reported some instance of uncertainty regarding the need for certain dental procedures or questioned the urgency in completing said procedure. This may sound like a lack of education but could actually be a lack of communication between both parties. This communication challenge could stem from prior negative experiences with dental professionals leading to a learned distrust or skepticism of dental care providers (dental fear and trust). Or this collaboration collapse could simply be due to the recurrent need to switch providers due to insurance or residential changes, thus minimizing the capacity to form a reciprocal relationship with a provider the patient may only see a twice a year, maximum (insurance issues). This interaction issue could even develop from the need to evaluate any major expenditure against the current financial reality (direct financial barrier). Since the researcher did not interview dental care professionals, possible factors influencing a communication breakdown from that viewpoint are unknown. However, the responsibility for repairing the communication breakdown cannot be placed solely upon the shoulders of either the dental professional or the caregiver; instead both parties should proactively seek a mutual desire to restore a productive conversation.

Shared decision-making (SDM) is one strategy that could improve the patient-provider communication relationship. Creating an environment conducive to SDM requires open communication from both parties; providers should seek to encourage patients to voice their concerns, fears, and preferences (Smith et al., 2009) while patients should seek to understand providers do have the patient's best health in mind, and not their pockets, when presenting and/or recommending treatment options (Röing & Holmström, 2012). The current economic instability may have cultivated the need for patients to adopt a consumerist perspective and weigh treatment cost against other financial responsibilities which may be antithesis to the dental professional's ingrained principles of optimum dentition. SDM would engage both patients and providers in candid discussions in a respectful, positive manner about necessity versus affordability from both viewpoints, thus potentially diminishing or eliminating dental fear or mistrust of the provider.

Practical recommendations for removing the direct financial barriers and insurance issues from the communication breakdown and from the PDD decision process will require policy changes that reduce the cost of dental care for adults or whole family coverage and minimize the need to switch providers with each insurance transfer. Although insurance coverage does not guarantee service utilization (DeVoe et al., 2007; McCormick, Sayah, Lokko, Woolhandler, & Nardin, 2012), reducing the financial obstacles that impede accessing dental care for every family member will increase the number of individuals receiving dental services for those whom cost is the only barrier. Increasing Medicaid dental benefits to adults, reducing copays, deductibles, and out-of-pocket fees, or recoupling dental insurance back into medical insurance under one coverage umbrella are three strategies that could increase the number of adults receiving RDC. Policy changes that target extending insurance duration periods to two years would increase the opportunity for patients to cultivate supportive patient-provider relationships which may positively mediate provider trust concerns in an economically unstable atmosphere.

Conclusion

In this study, I unearthed the situations and circumstances that led to caregivers' decisions to defer their RDC to the benefit of their children. Participants described the financial, personal, and structural determinants, along with facilitators and mediators, which had an emotional impact on their capacity to seek RDC for themselves and continue to seek RDC for their children. These findings indicated, for caregivers, deferring personal RDC is not simply a lack of desire, education, or care but a constant balance between affordability and providing their children with every healthy opportunity in life. Future research into the PDD phenomenon should focus on removing financial barriers to whole family routine preventive dental care, as well as encouraging open, productive communication between both parties that fosters a synergetic, trustful patient-provider relationship.

References

Aday, L. A., & Andersen, R. (1974). A framework for the study of access to medical care. *Health Services Research, 9*(3), 208–220. Retrieved from http://www.hsr.org/

Ahn, S., Burdine, J. N., Smith, M. L., Ory, M. G., & Phillips, C. D. (2011). Residential rurality and oral health disparities: Influences of contextual and individual factors. *Journal of Primary Prevention*, *32*(1), 29–41. doi:10.1007/s10935-011-0233-0

American Dental Association. (2012, April). *Breaking down barriers to oral health for all Americans: The role of finance*. Retrieved from http://www.ada.org/~/media/ADA/Public%20Programs/Files/barriers-paper_role-of-finance.ashx

Armfield, J. M., Stewart, J. F., & Spencer, A. J. (2007). The vicious cycle of dental fear: exploring the interplay between oral health, service utilization and dental fear. *BMC Oral Health*, *7*(1), 1–15. doi:10.1186/1472-6831-7-1

Barker, J. C., & Horton, S. B. (2008). An ethnographic study of Latino preschool children's oral health in rural California: Intersections among family, community, provider and regulatory sectors. *BMC Oral Health*, *8*(1), 8. doi:10.1186/1472-6831-8-8

Bartholomew, L. K., Parcel, G. S., Kok, G., Gottlieb, N. H., & Fernandez, M.E. (2011). *Planning health promotion programs: An intervention mapping approach.* San Francisco, CA: Jossey-Bass.

Bartlett, D. W., Fares, J., Shirodaria, S., Chiu, K., Ahmad, N., & Sherriff, M. (2011). The association of tooth wear, diet and dietary habits in adults aged 18–30 years old. *Journal of Dentistry*, *39*(12), 811–816. doi:10.1016/j.jdent.2011.08.014

Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *Qualitative Report, 13*(4), 544–559. Retrieved from http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf

Bramlett, M. D., Soobader, M.-J., Fisher-Owens, S. A., Weintraub, J. A., Gansky, S. A., Platt, L. J., & Newacheck, P. W. (2010). Assessing a multilevel model of young children's oral health with national survey data. *Community Dentistry and Oral Epidemiology*, *38*(4), 287–298. doi:10.1111/j.1600-0528.2010.00536.x

Brenner, M. E. (2006). Interviewing in educational research. In J. L. Green, G. Camilli, & P. B. Elmore (Eds.). *Handbook of complementary methods in education research* (3rd ed., pp. 357–370). Washington, DC: American Educational Research Association.

Broder, H. L., Russell, S., Catapano, P., & Reisine, S. (2002). Perceived barriers and facilitators to dental treatment among female caregivers of children with and without HIV and their health care providers. *Pediatric Dentistry, 24*(4), 301–308. Retrieved from http://www.ingentaconnect.com.ezp.waldenulibrary.org/content/aapd/pd

Butani, Y., Weintraub, J., & Barker, J. (2008). Oral health-related cultural beliefs for four racial/ethnic groups: Assessment of the literature. *BMC Oral Health*, *8*(1), 26. doi:10.1186/1472-6831-8-26 de Castilho, A. R. F. D., Mialhe, F. L., Barbosa, T. D. S., & Puppin-Rontani, R. M. (2013). Influence of family environment on children's oral health: A systematic review. *Jornal de Pediatria* (Versao en Portugues), *89*(2), 116–123. doi:10.1016/j.jped.2013.03.014

Centers for Disease Control and Prevention. (n.d.a). *Community water fluoridation*. Retrieved from http://www.cdc.gov/fluoridation/index.htm

Centers for Disease Control and Prevention. (n.d.b). *Oral health data systems: My water's fluoride*. Retrieved from http://apps.nccd.cdc.gov/MWF/SearchResultsV.asp?State=FL&StateName=Florida&County=Pinellas&StartPG=1&EndPG=20

Centers for Disease Control and Prevention, National Institute for Occupational Health and Safety. (2009). *Registry of toxic effects of chemical substances: Silicate (2 -), hexafluoro -, dihydrogen* (RTECS #VV8225000). Retrieved from http://www.cdc.gov/niosh-rtecs/vv7d80e8.html

Centers for Medicare and Medicaid Services. (2011, April). *CMS oral health strategy: Improving access to and utilization of oral health services for children in Medicaid and CHIP programs*. Retrieved from http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/CMS-Oral-Health-Strategy.pdf

Centers for Medicare & Medicaid Services. (2013, August 22). *Essential health benefits: A set of health care service categories that must be covered by certain plans,* *starting in 2014.* Retrieved from https://www.healthcare.gov/glossary/essential-health-benefits/

Choi, A. L., Sun, G., Zhang, Y., & Grandjean, P. (2012). Developmental fluoride neurotoxicity: A systematic review and meta-analysis. *Environmental Health Perspectives, 120*(10), 1362–1368. doi:10.1289/ehp.1104912

Cooper, L. A., Hill, M. N., & Powe, N. R. (2002). Designing and evaluating interventions to eliminate racial and ethnic disparities in health care. *Journal of General Internal Medicine*, *17*(6), 477–486. doi:10.1046/j.1525-1497.2002.10633.x

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology, 11*. doi:10.1186/1471-2288-11-100

Cullinan, M., Ford, P., & Seymour, G. (2009). Periodontal disease and systemic health: current status. *Australian Dental Journal*, *54*, S62–S69. doi:10.1111/j.1834-7819.2009.01144.x

Curtis, B., Evans, R., Sbaraini, A., & Schwarz, E. (2007). Geographic location and indirect costs as a barrier to dental treatment: a patient perspective. *Australian Dental Journal*, *52*(4), 271–275. doi:10.1111/j.1834-7819.2007.tb00501.x

Dietrich, T., Sharma, P., Walter, C., Weston, P., & Beck, J. (2013). The epidemiological evidence behind the association between periodontitis and incident atherosclerotic cardiovascular disease. *Journal of Clinical Periodontology*, *40*, S70–S84. doi:10.1111/jcpe.12062

DeVoe, J. E., Baez, A., Angier, H., Krois, L., Edlund, C., & Carney, P. A. (2007). Insurance + access ≠ health care: Typology of barriers to health care access for low-income families. *Annals of Family Medicine*, *5*(6), 511–518. doi:10.1370/afm.748

DeVoe, J. E., Tillotson, C. J., Angier, H., & Wallace, L. S. (2014). Predictors of children's health insurance coverage discontinuity in 1998 versus 2009: Parental coverage continuity plays a major role. *Maternal and Child Health Journal*, *18*(6). doi:10.1007/s10995-014-1590-0

Doty, H. E., & Weech-Maldonado, R. (2003). Racial/ethnic disparities in adult preventive dental care use. *Journal of Health Care for the Poor and Underserved*, *14*(4), 516–534. doi:10.1353/hpu.2010.0724

Dovidio, J. F., & Fiske, S. T. (2012). Under the radar: How unexamined biases in decision-making processes in clinical interactions can contribute to health care disparities. *American Journal of Public Health*, *102*(5), 945–952. doi:10.2105/AJPH.2011.300601

Dye, B. A., Vargas, C. M., Lee, J. J., Magder, L., & Tinanoff, N. (2011). Assessing the relationship between children's oral health status and that of their mothers.

Journal of the American Dental Association, *142*(2), 173–183. Retrieved from http://jada.ada.org/content/142/2/173

Dyer, T. A., Owens, J., & Robinson, P. G. (2014). The acceptability of care delegation in skill-mix: The salience of trust. *Health Policy, 117,* 170–178. doi:10.1016/j.healthpol.2014.02.013

El Aidi, H., Bronkhorst, E. M., Huysmans, M. C. D. N. J. M., & Truin, G. J. (2011). Multifactorial analysis of factors associated with the incidence and progression of erosive tooth wear. *Caries Research*, *45*(3), 303–312. doi:10.1159/000328671

Fisher-Owens, S. A., Gansky, S. A., Platt, L. J., Weintraub, J. A., Soobader, M.-J., Bramlett, M. D., & Newacheck, P. W. (2007). Influences on children's oral health: A conceptual model. *Pediatrics, 120*(3), e510–e520. doi:10.1542/peds.2006-3084

Flores, G., & Tomany-Korman, S. C. (2008). The language spoken at home and disparities in medical and dental health, access to care, and use of services in US children. *Pediatrics*, *121*(6), e1703–e1714. doi:10.1542/peds.2007-2906

Fossey, E., Harvey, C., McDermott, F., & Davidson. L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry, 36*(6), 717–732. doi:10.1046/j.1440-1614.2002.01100.x

Fox, J. (2011). The epidemic of children's dental diseases: Putting teeth into the law. *Yale Journal of Health Policy, Law, and Ethics,* 11(2), 223–266. Retrieved from http://digitalcommons.law.yale.edu/yjhple/vol11/iss2/1

Frazier, P. J., Jenny, J., & Bagramian, R. A. (1974). Parents' descriptions of barriers faced and strategies used to obtain dental care. *Journal of Public Health Dentistry*, *34*(1), 22–38. doi:10.1111/j.1752-7325.1974.tb00670.x

Friedewald, V. E., Kornman, K. S., Beck, J. D., Genco, R., Goldfine, A., Libby, P., … Roberts, W. C. (2009). *The American Journal of Cardiology* and *Journal of Periodontology* Editors' consensus: Periodontitis and atherosclerotic cardiovascular disease. *Journal of Periodontology*, *80*(7), 1021–1032. doi:10.1902/jop.2009.097001

Garfield, C. F., & Isacco, A. (2006). Fathers and the well-child visit. *Pediatrics*, *117*(4), e637–e645. doi:10.1542/peds.2005-1612

Gates, G. J. (2013). *LGBT parenting in the United States*. Retrieved from University of California, Williams Institute website http://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBT-Parenting.pdf

Goettems, M. L., Ardenghi, T. M., Romano, A. R., Demarco, F. F., & Torriani, D. D. (2012). Influence of maternal dental anxiety on the child's dental caries experience. *Caries Research*, *46*(1), 3–8. doi:10.1159/000334645

Grembowski, D., Spiekerman, C., & Milgrom, P. (2007). Disparities in regular source of dental care among mothers of Medicaid-enrolled preschool children. *Journal of Health Care for the Poor and Underserved, 18*(4), 789–813. doi:10.1353/hpu.2007.0096

Griffin, S. O., Regnier, E., Griffin, P. M., & Huntley, V. (2007). Effectiveness of fluoride in preventing caries in adults. *Journal of Dental Research, 86*(5), 410–415. doi:10.1177/154405910708600504

Guarnizo-Herreño, C. C., & Wehby, G. L. (2012). Explaining racial/ethnic disparities in children's dental health: A decomposition analysis. *American Journal of Public Health*, *102*(5), 859–866. doi:10.2105/AJPH.2011.300548

Handwerker, W., & Wolfe, S. (2010). Where bad teeth come from: Culture and causal force. *Human Organization*, *69*(4), 398–406. Retrieved from http://sfaa.metapress.com/content/632228X07100X654

Helfand, M., Buckley, D. I., Freeman, M., Fu, R., Rogers, K., Fleming, C., & Humphrey, L. L. (2009). Emerging risk factors for coronary heart disease: a summary of systematic reviews conducted for the U.S. Preventive Services Task Force. *Annals of Internal Medicine*, *151*(7), 496–507. doi:10.7326/0003-4819-151-7-200910060-00010

Heymann, J., Earle, A., & McNeill, K. (2013). The impact of labor policies on the health of young children in the context of economic globalization. *Annual Review of Public Health*, *34*(1), 355–372. doi:10.1146/annurev-publhealth-031912-114358

Higgs, Z. R., Bayne, T., & Murphy, D. (2001). Health care access: A consumer perspective. *Public Health Nursing, 18*(1), 3–12. doi:10.1046/j.1525-1446.2001.00003.x

Hirzy, J. W. (2000). *Why EPA headquarters union of scientists opposes fluoridation*. Retrieved from http://www.nteu280.org/Issues/Fluoride/NTEU280-Fluoride.htm

Hooley, M., Skouteris, H., Boganin, C., Satur, J., & Kilpatrick, N. (2012). Parental influence and the development of dental caries in children aged 0–6 years: a systematic review of the literature. *Journal of Dentistry*, *40*(11), 873–885. doi:10.1016/j.jdent.2012.07.013

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigour in qualitative case-study research. *Nurse Researcher, 20*(4), 12–17. doi:10.7748/nr2013.03.20.4.12.e326

Huff, R. M. & Kline, M. V. (2008). Health promotion in the context of culture. In Kline, M.V., & Huff, R.M. *Health promotion in multicultural populations: A handbook for practitioners and students* (pp. 3–22). Thousand Oaks, CA: Sage Publications, Inc.

Iida, H. & Rozier, R. G. (2013). Mother-perceived social capital and children's oral health and use of dental care in the United States. *American Journal of Public Health*, *103*(3), 480–487. doi:10.2105/AJPH.2012.300845

Institute of Medicine. (1993). *Access to health care in America* (M. Millman, Ed.). Washington, DC: National Academy Press.

Institute of Medicine. (2004). *Health literacy: A prescription to end confusion* (L. Nielsen-Bohlman, A. M. Panzer, & D. A. Kindig, Ed.). Washington, DC: National Academy Press.

Institute of Medicine. (2011). *Advancing oral health in America*. Washington, DC: The National Academies Press.

Institute of Medicine and National Research Council. (1998). *America's children: Health insurance and access to care* (M. Edmunds & M. J. Coye, Eds.). Washington, DC: National Academy Press.

Institute of Medicine and National Research Council. (2011). *Improving access to oral health care for vulnerable and underserved populations*. Washington, DC: The National Academies Press.

Ismail, A. I., Sohn, W., Lim, S., & Willem, J. M. (2009). Predictors of dental caries progression in primary teeth. *Journal of Dental Research*, *88*(3), 270–275. doi:10.1177/0022034508331011

Isong, I., Dantas, L., Gerard, M., & Kuhlthau, K. (2014). Oral health disparities and unmet dental needs among preschool children in Chelsea, MA: Exploring mechanisms, defining solutions. *Journal of Oral Hygiene & Health*, *2*(4), 1–8. doi:10.4172/2332-0702.1000138

Isong, I. A., Zuckerman, K. A., Rao, S. R., Kuhlthau, K. A., Winickoff, J. P., & Perrin, J. M. (2010). Association between parents' and children's use of oral health services. *Pediatrics, 125*(3), 502–509. doi:10.1542/peds.2009-1417

Jackson, R. (2006). Parental health literacy and children's dental health: Implications for the future. *Pediatric Dentistry*, *28*(1), 72–75. Retrieved from http://www.ingentaconnect.com.ezp.waldenulibrary.org/content/aapd/pd

Jimenez, M., Dietrich, T., Shih, M.-C., Li, Y., & Joshipura, K. J. (2009). Racial/ethnic variations in associations between socioeconomic factors and tooth loss.

Community Dentistry and Oral Epidemiology, *37*(3), 267–275. doi:10.1111/j.1600-0528.2009.00466.x

Johnson, I., Chestnutt, I., & Smith, A. (2010). Dental decisions–an emotional experience. *Dental Update*, *37*(10), 700–705. Retrieved from http://www.dental-update.co.uk/

Jones, E., Shi, L., Hayashi, A. S., Sharma, R., Daly, C., & Ngo-Metzger, Q. (2013). Access to oral health care: The role of federally qualified health centers in addressing disparities and expanding access. *American Journal of Public Health*, *103*(3), 488–493. doi:10.2105/AJPH.2012.300846

Karaca-Mandic, P., Yoo, S. J. C., & Sommers, B. D. (2013). Recession led to a decline in out-of-pocket spending for children with special health care needs. *Health Affairs*, *32*(6), 1054–1062. doi:10.1377/hlthaff.2012.1137

Karnieli-Miller, O., Strier, R., & Pessach, L. (2009). Power relations in qualitative research. *Qualitative Health Research*, *19*(2), 279–289. doi:10.1177/1049732308329306

Kelly, S. E., Binkley, C. J., Neace, W. P., & Gale, B. S. (2005). Barriers to care-seeking for children's oral health among low-income caregivers. *American Journal of Public Health*, *95*(8), 1345–1351. doi:10.2105/AJPH.2004.045286

Kenney, G. M., McMorrow, S., Zuckerman, S., & Goin, D. E. (2012). A decade of health care access declines for adults holds implications for changes in the Affordable Care Act. *Health Affairs*, *31*(5), 899–908. doi:10.1377/hlthaff.2012.0159

Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *American Journal of Occupational Therapy*, *45*(3), 214–222. doi:10.5014/ajot.45.3.214

KU Work Group for Community Health and Development. (2010). Chapter 19, Section 2: *Understanding risk and protective factors: Their use in selecting potential targets and promising strategies for interventions*. Lawrence, KS: University of Kansas. Retrieved from the Community Tool Box: http://ctb.ku.edu/en/tablecontents/sub_section_main_1156.aspx

Ku, L., & Broaddus, M. (2008). Public and private health insurance: Stacking up the costs. *Health Affairs*, *27*(4), w318–w327. doi:10.1377/hlthaff.27.4.w318

Kumar, S., Quinn, S. C., Kim, K. H., Musa, D., Hilyard, K. M., & Freimuth, V. S. (2012). The social ecological model as a framework for determinants of 2009 H1N1 influenza vaccine uptake in the United States. *Health Education & Behavior*, *39*(2), 229–243. doi:10.1177/1090198111415105

Langille, J.-L. D., & Rodgers, W. M. (2010). Exploring the influence of a social ecological model on school-based physical activity. *Health Education & Behavior*, *37*(6), 879–894. doi:10.1177/1090198110367877

Lara, A., Crego, A., & Romero-Maroto, M. (2012). Emotional contagion of dental fear to children: the fathers' mediating role in parental transfer of fear. *International Journal of Paediatric Dentistry*, *22*(5), 324–330. doi:10.1111/j.1365-263X.2011.01200.x

Lee, H. H., Lewis, C. W., Saltzman, B., & Starks, H. (2012). Visiting the emergency department for dental problems: Trends in utilization, 2001 to 2008. *American Journal of Public Health*, *102*(11), E77–E83. doi:10.2105/AJPH.2012.300965

Lewis, C. W., Linsenmayer, K. A., & Williams, A. (2010). Wanting better: A qualitative study of low-income parents about their children's oral health. *Pediatric Dentistry*, *32*(7), 518–524. Retrieved from http://www.ingentaconnect.com.ezp.waldenulibrary.org/content/aapd/pd

Lin, Y.-L., Yen, Y.-Y., Chen, H.-S., Liu, Y.-C., Chang, C.-S., Chen, C.-M., … Huang, H.-L. (2013). Child dental fear in low-income and non-low-income families: A school-based survey study. *Journal of Dental Sciences, 9*(2), 165–171. doi:10.1016/j.jds.2013.02.022

Lockhart, P. B., Bolger, A. F., Papapanou, P. N., Osinbowale, O., Trevisan, M., Levison, M. E., … Baddour, L. M. (2012). Periodontal disease and atherosclerotic vascular disease: Does the evidence support an independent association? A scientific statement from the American Heart Association. *Circulation*, *125*(20), 2520–2544. doi:10.1161/CIR.0b013e31825719f3

Logan, H. L., Guo, Y., Dodd, V. J., Seleski, C. E., & Catalanotto, F. (2013). Demographic and practice characteristics of Medicaid-participating dentists. *Journal of Public Health Dentistry, 74*, 139–146. doi:10.1111/jphd.12037

MacKinnon, D. P., & Luecken, L. J. (2011). Statistical analysis for identifying mediating variables in public health dentistry interventions. *Journal of Public Health Dentistry*, *71*(Suppl 1), S37. doi:10.1111/j.1752-7325.2011.00252.x

Mannina, M., Morgan, M., Murphy, N., & Trinh, B. (2013). *Effects of water fluoridation in the United States: Positive and negative impact of water fluoridation policy*. Retrieved from http://wnmurphy.com/wp-content/uploads/2013/03/William-Neil-Murphy-Effects-of-Water-Fluoridation-in-the-United-States.pdf

Margaritis, V., Koletsi-Kounari, H., & Mamai-Homata, E. (2012). Qualitative research paradigm in dental education: An innovative qualitative approach of dental anxiety management. *Journal of International Oral Health, 4*(1), 11–22. Retrieved from http://www.jioh.in/

Margolis, P. A., Carey, T., Lannon, C. M., Earp, J. L., & Leininger, L. (1995). The rest of the access-to-care puzzle: Addressing structural and personal barriers to health care for socially disadvantaged children. *Archives of Pediatrics & Adolescent Medicine*, *149*(5), 541–545. doi:10.1001/archpedi.1995.02170180071011

Marrero, T. (2014a, August 14). Pinellas County commission, district 4. *Tampa Bay Times*. Retrieved from http://www.tampabay.com

Marrero, T. (2014b, August 13). Pinellas county commissioner Norm Roche faces stiff competition in re-election bid. *Tampa Bay Times*. Retrieved from http://www.tampabay.com

Maserejian, N. N., Trachtenberg, F., Link, C., & Tavares, M. (2008). Underutilization of dental care when it is freely available: A prospective study of the New England Children's Amalgam Trial. *Journal of Public Health Dentistry*, *68*(3), 139–148. doi:10.1111/j.1752-7325.2007.00074.x

McCormick, D., Sayah, A., Lokko, H., Woolhandler, S., & Nardin, R. (2012). Access to care after Massachusetts' health care reform: A safety net hospital patient survey. *Journal of General Internal Medicine, 27*(11), 1548–1554. doi:10.1007/s11606-012-2173-7

Mejia, G. C., Weintraub, J. A., Cheng, N. F., Grossman, W., Han, P. Z., Phipps, K. R., & Gansky, S. A. (2011). Language and literacy relate to lack of children's dental sealant use: Language, literacy and lack of sealants. *Community Dentistry and Oral Epidemiology*, *39*(4), 318–324. doi:10.1111/j.1600-0528.2010.00599.x

Milgrom, P., Sutherland, M., Shirtcliff, R. M., Ludwig, S., & Smolen, D. (2010). Children's tooth decay in a public health program to encourage low-income pregnant women to utilize dental care. *BMC Public Health*, *10*(1), 76. doi:10.1186/1471-2458-10-76

Miller, E., Lee, J. Y., DeWalt, D. A., & Vann, W. F. (2010). Impact of caregiver literacy on children's oral health outcomes. *Pediatrics*, *126*(1), 107–114. doi:10.1542/peds.2009-2887

Miltiades, H. B. (2013). Early childhood experiences, cultural beliefs, and oral health of Mexican American women. *Hispanic Health Care International*, *11*(2), 87–94. doi:10.1891/1540-4153.11.2.87

Mofidi, M., Rozier, R. G., & King, R. S. (2002). Problems with access to dental care for Medicaid-insured children: What caregivers think. *American Journal of Public Health*, *92*(1), 53–58. doi:10.2105/AJPH.92.1.53

Monheit, A. C., Grafova, I., & Kumar, R. (2014, July). *How does family health care use respond to economic shocks? Realized and anticipated effects* (NBER Working Paper No. 20348). Retrieved from National Bureau of Economic Research website: http://www.nber.org/papers/w20348

Moore, T., & Kotelchuck, M. (2004). Predictors of urban fathers' involvement in their child's health care. *Pediatrics*, *113*(3), 574–580. doi:10.1542/peds.113.3.574

Mouthhealthy.org. (n.d.). *Nutrition: The basics*. Retrieved from http://www.mouthhealthy.org/en/nutrition/

Naidu, R., Nunn, J., & Forde, M. (2012). Oral healthcare of preschool children in Trinidad: A qualitative study of parents and caregivers. *BMC Oral Health*, *12*(1), 27. doi:10.1186/1472-6831-12-27

Nasseh, K., Vujicic, M., & O'Dell, A. (2013). *Affordable Care Act expands dental benefits for children but does not address critical access to dental care issues*. Health Policy Resources Center Research Brief. Retrieved from American Dental Association website: http://www.ada.org/sections/professionalResources/pdfs/HPRCBrief_0413_3.pdf

National Cancer Institute. (2005). *Theory at a Glance: A Guide for Health Promotion Practice*, 2nd Edition. Publication Number: T052. NIH Number: 05-3896. U.S. Department of Health and Human Services. Retrieved from http://www.cancer.gov/cancertopics/cancerlibrary/theory.pdf

Nuss, H. J., Williams, D. L., Hayden, J., & Huard, C. R. (2012). Applying the social ecological model to evaluate a demonstration colorectal cancer screening program in Louisiana. *Journal of Health Care for the Poor and Underserved*, *23*(3), 1026–1035. doi:10.1353/hpu.2012.0120

Onwuegbuzie, A. J. & Leech, N. L. (2007a). A Call for Qualitative Power Analyses. *Quality & Quantity, 41*(1), 105–121. doi:10.1007/s11135-005-1098-1

Onwuegbuzie, A. J. & Leech, N. L. (2007b). Sampling designs in qualitative research: Making the sampling process more public. *Qualitative Report, 12*(2), 238–254. Retrieved from http://www.nova.edu/ssss/QR/

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

QSR International. (2012). *NVIVO 10: Getting started*. Retrieved from http://download.qsrinternational.com/Document/NVivo10/NVivo10-Getting-Started-Guide.pdf

Röing, M., & Holmström, I. K. (2014). Involving patients in treatment decisions – a delicate balancing act for Swedish dentists. *Health Expectations*, *17*(4), 500–510. doi:10.1111/j.1369-7625.2012.00778.x

Sanz, M., D'Aiuto, F., Deanfield, J., & Fernandez-Aviles, F. (2010). European workshop in periodontal health and cardiovascular disease--scientific evidence on the association between periodontal and cardiovascular diseases: a review of the literature. *European Heart Journal Supplements*, *12*(Suppl B), B3–B12. doi:10.1093/eurheartj/suq003

Sbaraini, A., Carter, S. M., Evans, R. W., & Blinkhorn, A. (2012). Experiences of dental care: what do patients value? *BMC Health Services Research*, *12*(1), 177. doi:10.1186/1472-6963-12-177

Scapini, A., Feldens, C. A., Ardenghi, T. M., & Kramer, P. F. (2012). Malocclusion impacts adolescents' oral health-related quality of life. *Angle Orthodontist*, *83*(3), 512–518. doi:10.2319/062012-509.1

Scheffel, D. S., Jeremias, F., Fragelli, C. B., Santos-Pinto, L. M., Hebling, J., & de Oliveira, O. B. (2014) Esthetic dental anomalies as motive for bullying in schoolchildren. *European Journal of Dental Education, 8*, 124–128. doi:10.4103/1305-7456.126266

Schoen, C., Osborn, R., Squires, D., & Doty, M. M. (2013). Access, affordability, and insurance complexity are often worse in the United States compared to ten other countries. *Health Affairs*, *32*(12), 2205–2215. doi:10.1377/hlthaff.2013.0879

Schrimshaw, E. W., Siegel, K., Wolfson, N. H., Mitchell, D. A., & Kunzel, C. (2011). Insurance-related barriers to accessing dental care among African American adults with oral health symptoms in Harlem, New York City. *American Journal of Public Health*, *101*(8), 1420–1428. doi:10.2105/AJPH.2010.300076.

Seehra, J., Fleming, P. S., Newton, T., & DiBiase, A. T. (2011). Bullying in orthodontic patients and its relationship to malocclusion, self-esteem and oral health-related quality of life. *Journal of Orthodontics*, *38*(4), 247–256. doi:10.1179/14653121141641

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63–75. Retrieved from http://www.iospress.nl/journal/education-for-information/

Skillman, S. M., Doescher, M. P., Mouradian, W. E., & Brunson, D. K. (2010). The challenge to delivering oral health services in rural America. *Journal of Public Health Dentistry*, *70*, S49–S57. doi:10.1111/j.1752-7325.2010.00178.x

Smith, P. A., & Freeman, R. (2010). Remembering and repeating childhood dental treatment experiences: parents, their children, and barriers to dental care. *International Journal of Paediatric Dentistry*, *20*(1), 50–58. doi:10.1111/j.1365-263X.2009.01004.x

Small Necessities Leave Act, M. G. L. §§ 149-52D (1998).

Sommers, B. D., & Rosenbaum, S. (2011). Issues in health reform: how changes in eligibility may move millions back and forth between Medicaid and insurance exchanges. *Health Affairs*, *30*(2), 228–236. doi:10.1377/hlthaff.2010.1000

Spradley, J. P. (2003). Asking descriptive questions. In Pogrebin, M. R. (Ed.). *Qualitative approaches to criminal justice: Perspectives from the field* (pp. 44–61). Thousand Oaks, CA: Sage Publications, Inc. (Reprinted from *The ethnographic interview* [1st ed.], pp. 78–91, 1979, Belmont, CA: Wadsworth Group).

Starfield, B. (2000). Evaluating the State Children's Health Insurance Program: Critical considerations. *Annual Review of Public Health*, *21*(1), 569–585. doi:10.1146/annurev.publhealth.21.1.569

Stewart, J. L., Pyke-Grimm, K. A., & Kelly, K. P. (2012). Making the right decision for my child with cancer: The parental imperative. *Cancer Nursing*, *35*(6), 419–428. doi:10.1097/NCC.0b013e3182431071

Syed, S., Bilal, S., Dawani, N., & Rizvi, K. (2013). Dental anxiety among adult patients and its correlation with self-assessed dental status and treatment needs. *Journal of Pakistan Medical Association*, *63*(5), 614–618. Retrieved from http://www.jpma.org.pk/

Telleen, S., Rhee Kim, Y. O., Chavez, N., Barrett, R. E., Hall, W., & Gajendra, S. (2012). Access to oral health services for urban low-income Latino children: Social ecological influences. *Journal of Public Health Dentistry*, *72*(1), 8–18. doi:10.1111/j.1752-7325.2011.00275.x

Tellez, M., Sohn, W., Burt, B. A., & Ismail, A. I. (2006). Assessment of the relationship between neighborhood characteristics and dental caries severity among low-income African-Americans: A multilevel approach. *Journal of Public Health Dentistry*, *66*(1), 30–36. doi:10.1111/j.1752-7325.2006.tb02548.x

Tessarollo, F. R., Feldens, C. A., & Closs, L. Q. (2011). The impact of malocclusion on adolescents' dissatisfaction with dental appearance and oral functions. *Angle Orthodontist*, *82*(3), 403–409. doi:10.2319/031911-195.1

Thomas, E., & Magilvy, J. (2011). Qualitative rigor or research validity in qualitative research. *Journal for Specialists in Pediatric Nursing*, *16*(2), 151–155. doi:10.1111/j.1744-6155.2011.00283.x

Timiş, T. & Dănilă, I. (2005). Socioeconomic status and oral health. *Journal of Preventive Medicine, 13*(1-2), 116–121. Retrieved from http://www.jmpiasi.ro/

Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, *48*(4), 388–396. doi:10.1111/j.1365-2648.2004.03207.x

U. S. Census Bureau. (2011). *State and county quickfacts: Pinellas County, Florida* [Table]. Retrieved from http://quickfacts.census.gov/qfd/states/12/12103.html

United States Department of Health and Human Services. (2000). *Oral health in America: A report of the Surgeon General*. Rockville, MD: National Institute of Dental and Craniofacial Research, National Institutes of Health.

United States Department of Health and Human Services. (2011). *Healthy People 2020: Oral health objectives*. Retrieved from http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=32

Vanagas, G., Milašauskienė, Ž., Grabauskas, V., & Mickevičienė, A. (2009). Associations between parental skills and their attitudes toward importance to develop good oral hygiene skills in their children. *Medicina, 45*(9), 718–723. Retrieved from http://medicina.kmu.lt/

Vann, W. F., Lee, J. Y., Baker, D., & Divaris, K. (2010). Oral health literacy among female caregivers: Impact on oral health outcomes in early childhood. *Journal of Dental Research*, *89*(12), 1395–1400. doi:10.1177/0022034510379601

Vermaire, J. H., van Exel, N. J. A., van Loveren, C., & Brouwer, W. B. (2012). Putting your money where your mouth is: Parents' valuation of good oral health of their children. *Social Science & Medicine*, *75*(12), 2200–2206. doi:10.1016/j.socscimed.2012.08.018

de Vos, M. A., Seeber, A. A., Gevers, S. K. M., Bos, A. P., Gevers, F., & Willems, D. L. (2014). Parents who wish no further treatment for their child. *Journal of Medical Ethics*. Advance online publication. doi:10.1136/medethics-2013-101395

Vujicic, M. & Nasseh, K. (2013, August 26). *Reconnecting mouth and body: ACA fails to meet dental care needs but states can pick up slack*. [Web log post]. Retrieved from http://healthaffairs.org/blog/2013/08/26/reconnectingmouth-and-body-aca-fails-to-meet-dental-care-needs-but-states-can-pick-up-slack/. Accessed September 4, 2013.

Vujicic, M., Nasseh, K., & Wall, T. (2013). *Dental care utilization declined for adults, increased for children during the past decade in the United States*. Health Policy Resources Center Research Brief. Retrieved from American Dental Association website: http://www.ada.org/sections/professionalResources/pdfs/HPRCBrief_0213_2.pdf

Waite, D. (2011). A simple card trick teaching qualitative data analysis using a deck of playing cards. *Qualitative Inquiry*, *17*(10), 982–985. doi:10.1177/1077800411425154

Wall, T. P., Vujicic, M., & Nasseh, K. (2012). Recent trends in the utilization of dental care in the United States. *Journal of Dental Education*, *76*(8), 1020–1027. Retrieved from http://www.jdentaled.org

Wall, T., Nasseh, K., & Vujicic, M. (2013). *Financial barriers to dental care declining after a decade of steady increase*. Health Policy Resources Center Research Brief. Retrieved from American Dental Association website: http://www.ada.org/~/media/ADA/Science%20and%20Research/Files/HPRCBrief_1013_1.ashx

Wallace, B. B., & MacEntee, M. I. (2012). Access to dental care for low-income adults: Perceptions of affordability, availability and acceptability. *Journal of Community Health*, *37*(1), 32–9. doi:10.1007/s10900-011-9412-4

Weintraub, J. A., Prakash, P., Shain, S. G., Laccabue, M., & Gansky, S. A. (2010). Mothers' caries increases odds of children's caries. *Journal of Dental Research*, *89*(9), 954–958. doi:10.1177/0022034510372891

Wells, M. B., & Sarkadi, A. (2012). Do father-friendly policies promote father-friendly child-rearing practices? A Review of Swedish parental leave and Child Health Centers. *Journal of Child and Family Studies*, *21*(1), 25–31. doi:10.1007/s10826-011-9487-7

Wendler, D., & Rid, A. (2011). Systematic review: the effect on surrogates of making treatment decisions for others. *Annals of Internal Medicine*, *154*(5), 336–346. doi:10.7326/0003-4819-154-5-201103010-00008

Weng, H.-J., Niu, D.-M., Turale, S., Tsao, L.-I., Shih, F.-J., Yamamoto-Mitani, N., … Shih, F.-J. (2012). Family caregiver distress with children having rare genetic disorders: a qualitative study involving Russell–Silver Syndrome in Taiwan. *Journal of Clinical Nursing*, *21*(1-2), 160–169. doi:10.1111/j.1365-2702.2010.03583.x

Wigen, T. I., Skaret, E., & Wang, N. J. (2009). Dental avoidance behaviour in parent and child as risk indicators for caries in 5-year-old children. *International Journal of Paediatric Dentistry*, *19*(6), 431–437. doi:10.1111/j.1365-263X.2009.01014.x

Wigen, T. I. & Wang, N. J. (2012). Parental influences on dental caries development in preschool children. An overview with emphasis on recent Norwegian research. *Norsk Epidemiologi*, *22*(1). Retrieved from http://www.ntnu.no/ojs/index.php/norepid/index

Williams, E., Tumiel-Berhalter, L., Purdy, C., Ransom, A., & Anderson, J. (2012). Racial disparities in cancer screening among women with chronic joint pain. *Journal of Health Disparities Research and Practice*, *4*(1). Retrieved from http://digitalscholarship.unlv.edu/jhdrp/

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: The Guilford Press.

Yu, S. M., Bellamy, H. A., Kogan, M. D., Dunbar, J. L., Schwalberg, R. H., & Schuster, M. A. (2002). Factors that influence receipt of recommended preventive pediatric health and dental care. *Pediatrics*, *110*(6), e73–e73. doi:10.1542/peds.110.6.e73

Appendix A: Recruitment Flyer

Volunteers Needed for Research Study

I am looking for volunteers to help investigate different factors that may influence family access to oral health care.

Who is Eligible?

- Parents and caregivers at least 18 years of age
- Who have not received a dental exam in the last 12 months
- Who have at least one child under the age of 18 who has received a dental exam within the last 12 months

What will you be asked to do?

- Agree to an audiotaped interview answering 10 questions

Compensation

You will receive $10.00 gift card to local coffee shop or grocery store for your participation immediately at the conclusion of the interview.

If you have any questions or are interested in participating, please contact:

Investigator: Megan White at [redacted]

Dental Care Access Research Study
CONTACT PERSON
[redacted]

Dental Care Access Research Study
CONTACT PERSON
[redacted]

Dental Care Access Research Study
CONTACT PERSON
[redacted]

Dental Care Access Research Study
CONTACT PERSON
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[redacted]

Dental Care Access Research Study
CONTACT PERSON
[redacted]

Appendix B: Study Instruments

Qualifier Questions

- Have you accessed dental services for yourself in the last 12 months?
- Have at least one of your children accessed dental services in the last 12 months?
- Would you be interested in participating in a research study to determine the differences in dental health access within families?

Interview Questions

1. Please share with me as many reasons as you can think of as to why you seek dental care for your children.
2. What are your thoughts on how your child's dental wellness visits impacts their overall health?
3. Describe any situations and obstacles you encountered when seeking dental health services for you and your children.
4. How did this affect your capacity to access dental care services for yourself?
5. How did these experiences impact your perception of yourself as a caregiver?
6. What health advantages do you perceive encourage you to obtain dental care for your children?
7. What do you tell your children about dental wellness as it relates to their health?
8. Please share with me as many reasons as you can think of as to why you put off seeking dental care for yourself.
9. If you had to go without a health care provider or dental provider, which one would it be and why?

10. Is there anything else you would like to share with me about seeking dental care?

Appendix C: Informed Consent Form

CONSENT FORM

You are invited to take part in a research study of caregivers who have deferred their oral health for the oral health of their children. The researcher is inviting parents and caregivers who have not obtained a regular preventive dental checkup within 12 months, but accessed dental care for their child at least once within 12 months to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Megan White, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to identify and explore the risk factors and situations that lead parents and caregivers to defer their personal dental health for the dental health of their children.

Procedures:
If you agree to be in this study, you will be asked to:

- Participate in a 30-45 minute face-to-face interview.
- Describe the barriers and experiences that led to the sacrifice of your oral health care to enable you to provide dental care for your children.
- Permit the interview to be audio-taped. You can refuse to be recorded, but recording the interview will allow the researcher an opportunity to review your responses in-depth.
- Meet with the researcher a second time to review the interpretation of findings to confirm that the researcher has captured an accurate account of the barriers and experiences that resulted in your oral health care sacrifice. You can decline the additional meeting with no repercussions and it will not impact initial interview.

Here are some sample questions:
Interview questions –

- Please share with me as many reasons as you can think of as to why you seek dental care for your children.
- What are your thoughts on how your child's dental wellness visits impacts their overall health?
- What health advantages do you perceive encourage you to obtain dental care for your children?
- If you had to go without a health care provider or dental provider, which one would it be and why?
- What do you tell your children about dental wellness as it relates to their health?
- Describe the situations and obstacles you encountered when seeking dental health services for you and your children.
- How did this affect your capacity to access dental care services for yourself?
- Please share with me as many reasons as you can think of as to why you put off seeking dental care for yourself.
- How did these experiences impact your perception of yourself as a caregiver?

- Is there anything else you would like to share with me about seeking dental care?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as stress or becoming upset. Being in this study would not pose risk to your safety or wellbeing. You may refuse to answer any question or terminate the interview at any time. If you experience any stress or anxiety during the course of this interview, Personal Enrichment through Mental Health Services (PEMHS) offers a 24-hour hotline for mental health assistance at 727-541-4628. A helpline directory of additional mental health services can be reached by dialing 2-1-1 or 727-210-4211.

A potential benefit of participating in this study would be improved attention to the barriers caregivers encounter when accessing oral health services for themselves as well as their children.

Payment:
You will receive a $10.00 gift card to a local coffee shop or grocery store for your participation immediately at the conclusion of the interview.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by following a preset data management plan listed below:

- Every opportunity will be taken to ensure personal information is secure.
- Audio recordings will only be heard and transcribed by the researcher. All paper records will be kept secured in a locked safe and all electronic files will be kept on a password-protected computer with access by only the researcher.
- All identifying information will be removed from written records and pseudonyms utilized in the transcripts and final report.
- Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via cell phone at [redacted] or email at [redacted]. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is [redacted]. Walden University's approval number for this study is 04-14-14-0018593 and it expires on April 13, 2015.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant ______________________________

Date of consent ______________________________

Participant's Signature ______________________________

Researcher's Signature ______________________________

Curriculum Vitae

Megan White, MSH

Professional Profile

- Experience with qualitative research methodology
- Familiarity with quantitative research methodology
- Experience in online research
- Experience in qualitative data collection methods
- Proficient at qualitative data analysis and interpretation
- Experience with NVivo and SPSS programs
- Proficient in Microsoft Office Suite
- Excellent communication skills

Education

Doctor of Philosophy - Public Health Expected 2015
Walden University, Minneapolis, MN
Dissertation: Exploring the Risk Factors that Influence the Parental Dental Deferment Decision

Master of Science in Health - Community Health 1998
University of North Florida, Jacksonville, FL

Bachelor of Arts - Psychology 1996
University of West Florida, Pensacola, FL

Professional Experience

Nurse Assistant Training Administrative Coordinator 2011—2013
American Red Cross, Clearwater, FL

Achievements:

- Training Coordinator for incoming Administrative Coordinators for Florida program locations
- Administrative Coordinator for One Red Cross Migration for Florida Nurse Assistant Training Instructors

Responsibilities:

- Coordinated Nurse Assistant Training programs for three branch locations including 6-month course scheduling, group and individual student registrations, inventory management, and administrative paperwork.
- Assisted Nurse Assistant Training Program Manager with managing grant monies and preparing grant funding reports.
- Developed standardized policies and procedures for the new Administrative Coordinators for the Florida Nurse Assistant Training program locations.
- Created student tracking spreadsheets for graduating participants, implemented for 2012 programs. Worked with instructors and office volunteers to contact students for certification date, job status, and future training plans.

Tradeshow Coordinator, Contract Sales Specialist 2006—2010

Amerx Health Care Corp., Clearwater, FL

Achievements:

- Awarded Federal Supply Schedule contract for product line

Responsibilities:

- Coordinated company attendance at 50+ industry specific tradeshows including processing exhibit applications and booth fees, assembling product/sales literature packets, preparing pre/post-show attendee lists for sales department, and analyzing post-show costs.
- Developed policies and procedures for the Sales Representatives regarding booth setup and break down, shipping processes, and travel expenses.
- Coordinated speaker presence at numerous tradeshows including abstract/poster submissions, CV and lecture topic distribution, and fee payments.
- Completed solicitation paperwork and awarded Federal Supply Schedule Contract for all AmeriGel products.
- Increased FSS contract exposure by scheduling product in-services at VA, DOD, and IHS hospitals, sending product samples and literature, and supporting the National Sales Representative.

Health & Safety Specialist 2000—2006

American Red Cross, Clearwater, FL

Achievements:

- 2004 Spirit of Excellence Award in the Technical category
- Certificate of Recognition for Outstanding Performance in Revenue and Enrollment Goals for Fiscal Year 2001
- Certificate of Recognition for Outstanding Performance in Health & Safety January – May 2001

Responsibilities:

- Provided support to new HSS specialists, instructors, and clients through product and service knowledge, timely follow-up and prioritizing daily workloads.
- Created and distributed marketing collaterals that expanded customer base and increased Health and Safety revenue and outreach within community.
- Coordinated administrative and logistical support for the branch by multi-tasking and managing resources wisely.
- Successfully implemented Nurse Assistant Training program at Clearwater branch.

Publications

“Amerigel® post-op kit: Convenience increases compliance.” *Podiatry Management*. Profiles in Excellence. September 2007, p. 190.

“AmeriGel® post-op surgical kit, New from Amerx.” *Podiatry Management*. Podiatric Marketplace. August 2007, p. 244.

Community Service

SPCA of Tampa Bay 2009—Present
Feline, Rabbit, and Pocket Pet Counselor