2019

Perceptions of Barriers to Oral Care among African American Families in Durham, North Carolina

Samuel Motto
Walden University

Walden University

College of Health Sciences

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Samuel Motto

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Walden University
2019

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MPH, Walden University, 2012

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Dissertation Submitted in Partial Fulfillment of

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Doctor of Philosophy

Public Health

February, 2019

Abstract

Dental caries is one of the biggest issues of concern for healthcare providers in Durham, North Carolina due to the high prevalence of dental caries in African Americans. Many researchers have identified socio-economic, low income, poor education, psychological behavior, awareness, allied diseases, environment, unhealthy diet, obesity, type II diabetes, and inadequate health facilities as the possible reasons for its high prevalence, yet literature lacks information regarding how African Americans perceive the problem of oral health. Knowledge of the perceived factors may help to identify the actual cause of dental caries through the eyes of African Americans. The purpose of this qualitative study was to understand the perceptions of barriers to access to dental care among African Americans in Durham North Carolina. The target population was the parents of the African American children aged between 6 and 14 years who either have suffered from dental caries or whose children are thus afflicted are eligible to participate in the study. A total of 10 participants were asked to respond to interview questions based on their experiences. The responses were recorded, transcribed and analyzed using the Nvivo software to identify different themes. The study results showed existing barriers such as the available resources and access to the services, including income level, the type of insurance, and coverage. That limit African Americans from accessing oral health care both for themselves and their children. These factors expose them to the danger of increased oral cavities that have adverse effects on their physical, emotional and psychological health. Evidence from this study provides a better understanding of the perceived barriers to oral health for better targeting by health officials to improve people's health and help people have greater control over their lives.

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Acknowledgements

This work would not have been possible without the help from the man above. I attribute all my success to my Lord and savior Jesus Christ. I would like to thank him for giving me the strength, motivation, and confidence to achieve this milestone in my academic career.

I am grateful to each of the members of my dissertation committee. To my chair, Dr. Jeanne Connors, and my committee member Dr. Stoerm S. Anderson, thank you for your guidance, support, and for sharing your expertise. You made this journey possible, and taught me a great deal about scholarly research.

Nobody has been more important to me throughout my dissertation journey than my family. I would like to thank them for their unconditional love and support. I could not have completed this dissertation without you.

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Chapter 1: Introduction to the Study

Introduction

The oral health in North Carolina has been a source of concern in recent decades (Dconc.gov, 2011). African-Americans are one of the prominent communities of Durham and are prone to suffer from oral diseases owing to high levels of poverty, social exclusion, migration, lack of awareness, and many other identified factors (Patrick et al., 2006). In the case of oral health, most programs, and services designed to overcome the spread of the diseasetarget the schools exclusively. Despite the importance of oral health in these age groups, children of low-income families have the highest levels of dental caries and are less likely to visit a dentist and receive treatment, making access to dental care a fundamental aspect of disparities in oral health (Rozier et al., 2010; Dye, Thornton-Evans, Li, & Lafolla, 2015).

Although the state offers various programs to ameliorate the oral health problem in the region, there remains a pressing need to investigate the issue in much greater depth. Access to health services is a complex concept involving the formulation of care policies that satisfy users, features of the population being served, and service organizations that meet the needs of the community. The perception that there are barriers to obtaining dental care may help to explain the attitudes of patients or potential patients (Weintraub, Burgette & Chadwick, 2016). Access to care services is a key measure of health inequities; it is one element of health systems and the organization of services. The ongoing nature of treatment makes access a multidimensional category (DiMarco et al., 2016).

This study aimed to identify perceived obstacles to care during early childhood. This age group is the focus owing to the significance of timely and efficient dental care during the first years of life, which can prevent many types of oral problems and thereby contribute to the

healthy growth and overall development of children. The perceptions of parents are naturally important because they are the ones who spend the most time with the children (Cortez et al., 2016). Furthermore, views of parents must be taken into account when considering interventions for managing health conditions, especially in the African-American population, which is characterized by particular vulnerability to oral diseases (Cortez et al., 2016; Kim et al., 2016).

I intended to investigate perceptions of barriers to oral care among African American families in Durham, North Carolina using a qualitative method. This chapter describes the background of the study, a statement of the problem, and the justification, research questions, limitations, and delimitations of the work that is documented here. In addition to defining the key terms, this chapter also provides the framework for the research and discusses its social implications.

Background of the study

Oral health affects people in physical and psychological ways, ultimately influencing overall growth, enjoyment of life, appearance, communication, chewing and tasting the food, enjoyment of social life, and perceptions of social welfare (Kisely et al., 2015). Oral health means more than simply having white teeth and avoiding caries, gum disease, tooth loss, and other oral diseases (Kidd & Fejerskov, 2016). Oral health relates to the capacity of a person to make use of all the functions of the structures that make part of the mouth (jaws, lips, tongue, palate, glands, teeth, and other tissues of the neck and face) and to chew, swallow, and suck without discomfort. Oral health, therefore, concerns the processing of food and other vital processes, such as breathing, articulating words and speaking, as well as facial gestures such as a smile or a kiss that also require the functionality of the structures of the mouth (Felton, Chapman & Felton, 2013).

Oral Health promotes self-esteem, social interaction, and overall psychosocial well-being from early childhood through adulthood and old age (Zou et al., 2016). Poor oral health impacts the overall health of children and increases the risk of other underlying chronic diseases such as heart attacks, dementia, and diabetes. Untreated dental caries lead to pain, infection, and tooth loss (Sanders, 2012), and this is one of the most challenging diseases that children face in Durham County. Although there are notable reductions in the prevalence of dental diseases compared to other counties of North Carolina, Durham County's health care system still lags in comparison with those of many other states of the USA (Dconc.gov, 2011). Determining the causes of oral diseases is necessary for the design of intervention and updating of programs and revisiting them as these factors change. There are many known barriers to accessing oral care, including education and income (Rozier, 2012). Poor oral health is often observed in the children from low-income families and minorities for the simple reason that they have relatively less access to dental care. Parents with less education and income are more likely to have children with compromised oral health because they are unable to provide the necessary care (Burnett, Aronson, & Asgary, 2015; Biordi et al., 2015; Da Fonseca, 2012; Ghazal et al., 2015; Hoffmeister et al., 2016). The oral health of children is influenced by their living conditions, lifestyle, diet patterns, and, naturally, the affordability of health care (Arrow & Klobas, 2015). Minorities, mainly because they lack knowledge about insurance policies, often do not have access to health insurance (Mesch, Mano, & Tsamir, 2012). A qualitative study explored the perceived barriers to health care (Pilling & Estes, 2016; Santha et al., 2016) and help to address the lack of information regarding how African American families see the barriers to accessing oral care (Atyeo, 2016).

The qualitative information helped understand poor oral health from the viewpoint of African Americans, who as mentioned suffer from higher rates of dental diseases than the population as a whole (Lee, 2012; Santha et al., 2016). A detailed account of these factors and the ways in which they interact would help to explain the sources of poor oral health among the African American minority. In this study, I applied a qualitative approach in collecting data regarding the perceptions of African American parents regarding the barriers to oral health.

Problem Statement

Oral health is influenced by the interaction of biological, psychological, sociological, behavioral, and environmental factors (Williams, 2011). Disparities persist in oral care among children from different social strata and ethnicities (Isong et al., 2012; Rouxel et al., 2015). According to the National Center for Health Statistics, dental caries is one of the most common chronic childhood diseases, especially among low-income families (Dye, Li & Thornton-Evans, 2012). Many barriers to oral health can be specific to particular communities.

More than 18% of the residents of Durham County, North Carolina, (NC) live below the poverty line, compared with the national average of 14.9% (Spratt et al., 2015). There is a scarcity of dentists in the county, and oral health is mainly provided by the private clinics (Fraher et al., 2012). It is hard for these low-income families to access oral health care (Dconc.gov, 2011; Healthy Durham, 2013). Eight percent of the children in North Carolina are uninsured, and 10% of children in Durham County are undernourished (Healthy Durham, 2013). The proportion of children using health care in North Carolina is lower than the national average (NCPH,2016).

African Americans make up about 38 percent of the total population in Durham County (Quickfacts.census.gov, 2016). Only 60.1% of African-American children visit dental clinics, and more than 4% of this population suffers from dental caries. For this reason, specific targets have

been set by the Center for Disease Control and Prevention (CDC) to reduce dental caries among children to 1.1% by the year 2020; the current rate is 1.76%amongchildren inNorth Carolina. Given this goal, there is a need to investigate the perceived barriers that prevent children from accessing oral health care (Dconc.gov, 2011).

These perceived barriers can differ as a result of organizational, financial, and geographical factors (Isong et al., 2014). Disadvantaged children in Durham, NC, suffer disproportionately from oral diseases, resulting in a significant societal cost and missed hours from school (Sanders, 2012). Studies have pinpointed several barriers to dental care. The common barriers include genetics (Rai et al., 2016), psychological behavior (Polk, Weyant & Manz, 2010), awareness (Twetman, 2016), allied diseases (Virtanen, Vehkalahti,& Vehkalahti, 2015; Olsen, 2016), environment (Gupta et al., 2015), unhealthy diet (Chi et al., 2015), obesity (Silva et al., 2013), type II diabetes (Leite, Marlow & Fernandes, 2013), and inadequate health facilities (Capurro et al., 2015). None of these studies, however, has addressed the issue from the perspective of the participants. The proposed study sought to provide detailed insights into African American's perceptions of barriers to dental care.

Nature of the study

The attitude of the population as a social component of the oral health had been advocated for in the existing scientific literature (Reissmann et al., 2013; Schuch et al., 2015). I will utilize a Health Belief Model associated with the grounded theory qualitative research methodology to investigate the causes of oral caries (Riggs et al., 2015). The study relied on the content analysis, which was commonly conducted using a semi-structured interview and thus from a methodological perspective. The act of inferring involves performing a logical operation that supported a proposal through its relationships with other propositions already accepted as

true. The study of the perceptions of the participants already proved to be a useful qualitative approach for examining the barriers to oral health (Andersson & Nordenram, 2004; Östergård, Englander & Axtelius, 2015; Santha et al., 2015).

The semi-structured interview method elicited certain themes that enable the researcher to understand the issue in a more pragmatic way (Rae & Rees, 2015; Vichayanrat et al., 2012). Qualitative research provided real-time evidence to explain factors that may not be described by quantitative studies (Ojala et al., 2015; Sale et al., 2015; White, 2015). Content analysisprovides a meaningful interpretation of the variables used in qualitative research (Abdi et al., 2016; Griffiths, 2016; Learning, 2016). The information obtained from the semi-structured interview can help in understanding the perceptions of barriers to accessing oral health care (Morison & Moir, 1998; Cohen-Carneiro, Souza-Santos & Rebelo, 2011).

Research Questions

RQ1. What are African American parents' perceptions of barriers to dental care?

RQ2. What do African American parents consider to be adequate oral health care for their children?

Purpose of the study

The goal of this qualitative research approach was to explore and understand the perceptions of parents about barriers to children's oral health (Abanto et al., 2011; Pahel, Rozier, & Slade, 2007; Talekar et al., 2005). The need for research on this topic is particularly acute with regards to African-Americans, who make up 39% of the population of North Carolina (Masumo et al., 2012). The relationship of contributing factors discussed above to the oral health of children belonging to different minorities reveals disparities (Christensen, Twetman, & Sundby, 2010).

The understanding of the parents' perceptions in the light of their personal experiences could explain the causes of the poor oral health of children in detail. Qualitative analysis allowed for the identification of differing perceptions that are directly related to the provision of health services for this population. Thus, it served as a basis for contributing to the improvement in children's oral health conditions by highlighting strengths, difficulties, and barriers in the management of dental care, disease prevention, and rehabilitation using multidisciplinary approaches.

Framework of the study

The perceptions of barriers to oral health based could shed light on attitudes regarding treatment. The Health Belief Model (HBM) can help in understanding such perceptions as a potential barrier to improving the oral health of African American children. The HBM reveals the perceptions of individuals about the factors responsible for a particular disease and explains how the behavior of individuals influences those factors (Bowling, 2014; O'connor et al., 2014). This type of model has been used by many researchers to assess the perceptions of barriers to oral health (Moghadam et al., 2015; Solhi et al., 2010), including those of African American families faced with providing dental care for their children and themselves. The HBM describes the relationships among the behaviors, perceived barriers, and impact on the oral health in terms of perceptions of oral health (Abedi, Rostami, & Eftekhari, 2013).

An accurate health diagnosis for the population turned to be very complex owing to the multiplicity of factors. It was necessary to identify the behavior of health components and their determinants or risk factors, which together allowed for the construction and execution of an action plan aimed at achieving better health indicators. The qualitative investigations rest on a theoretical basis as a guide for the development of these indicators (Sbaraini et al., 2011). The

HBM contains three components that may be used in qualitative studies for the assessment of perceived factors that may act as barriers to dental health (Walker & Jackson, 2015). It is essential that parents understand that their children's dental caries is a severe disease (Dodd et al., 2014; Bracksley, 2011). Perceptions of risk and vulnerability can delineate the severity of the problem of dental caries (DiMatteo, Haskard, & Williams, 2013). One-on-one semi-structured interview engaged the participants in the formal interview process with open-ended questions that allow them to express their views (Harrell & Bradley, 2009). Such interviews helped to highlight the perceived barriers to understanding the real cause of dental caries in African American children. This study mainly used primary sources for data collection through one-on-one semi-structured interviews with the parents of school-age children. Fifteen to twenty respondents were sought so that sufficient data could be obtained. The collection of data would be dependent on the voluntary agreement of respondents to participate in the study. The one-on-one semi-structured interviews would generate textual qualitative information, which would be then subjected to content analysis using Nvivo", Qualitative data analysis software as used by Carson and Freeman (2015).

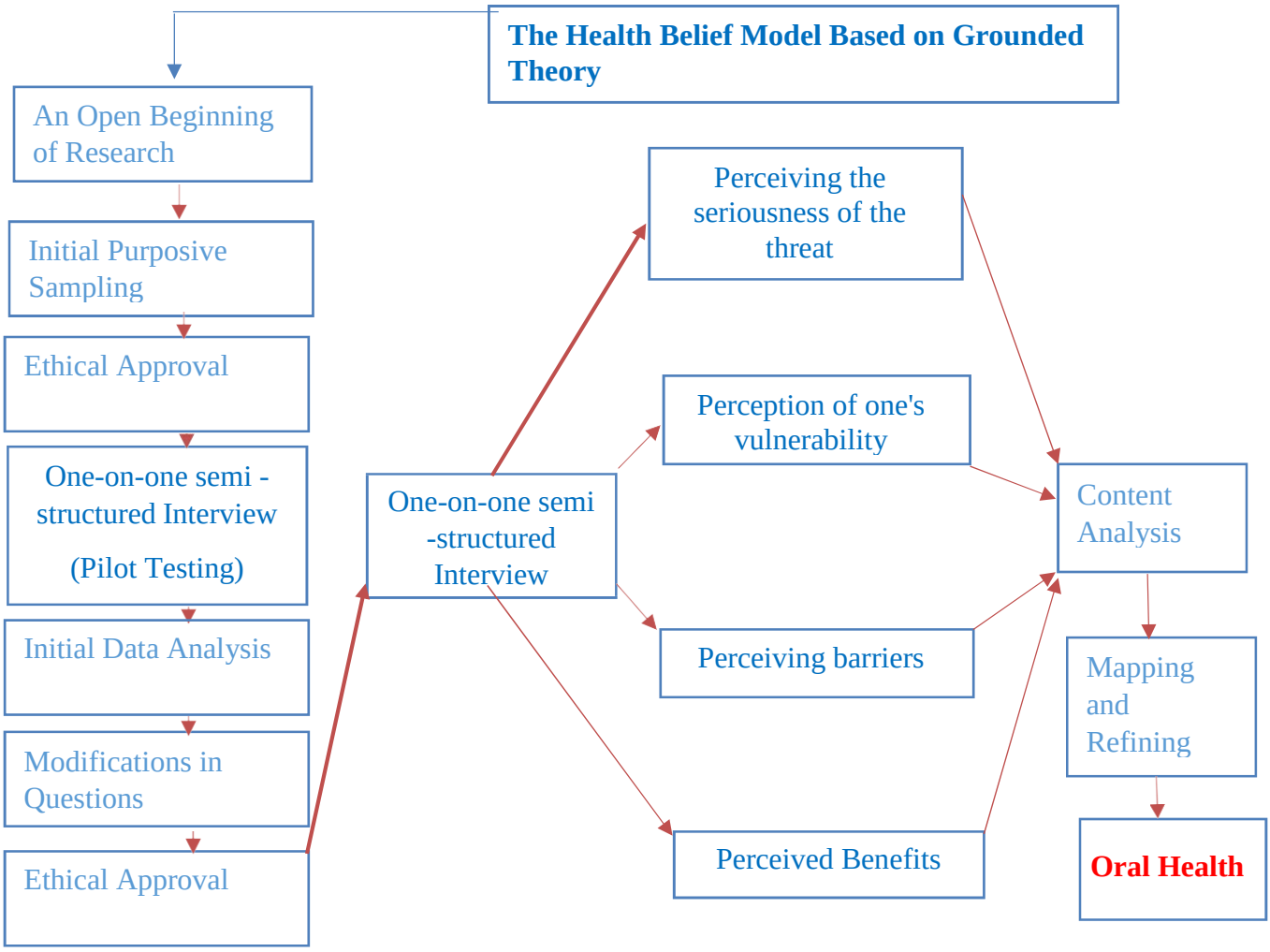

Figure I. Grounded Theory Methods

Definition of Terms

A chronic condition is a long-term illness that affects the quality of life.

A *health diagnosis* is an assessment of the health status of a community and the factors that influence it; the accuracy of a diagnosis depends on the quality of health treatment available to the community, the family, and the individual.

Accessibility to health services describes the ability of a population to make use of necessary health services in terms of the service delivery system.

Dental fillings are made of a tooth affected by caries; the area is cleaned and the resulting hole sealed with resin or amalgams.

Dentistry can be defined as a specialty and area of knowledge in the health sciences that concerns the diagnosis, prevention, and treatment of diseases of the stomatognathic apparatus. This apparatus includes the organs and tissues used to eat, talk, chew, swallow, smile, breath, kiss, suck, and produce facial expressions; it is located in the maxillofacial region above the orbital area of the hyoid bone.

Diagnosis is a doctor's assessment of the cause of particular disease.

Diet refers to the usual food and liquids ingested by a person.

Endowment refers to the resources available to an individual account for the use of a service and involves income level, insurance coverage, place of residence, and other considerations.

Malocclusion is a developmental condition that in most cases involves moderate distortion as a result of abnormal development and comprises various morphological deviations that may arise as unique features or in combination.

Oral health refers to the state of the tissues of the mouth and the structures that contribute to physical, mental, and social well-being, welfare, and enjoyment of life; good oral health means that an individual can speak, eat, and socialize without pain, discomfort, or embarrassment.

Oral hygiene is the degree of cleaning and maintenance of teeth and jaw joints.

Oral hygiene refers to proper dental cleaning habits that prevent mouth diseases or disorders.

Orthodontics involves the study, prevention, diagnosis, and treatment of abnormal shape, position, relation, and function of dental-maxillofacial structures.

Perceived need for care refers the level of disease or a perceived problem that is the immediate cause to use a service.

Predisposition refers to the propensity of individuals to use a service and involves, among other things, beliefs and attitudes about health and services, the information that patients receive regarding services, and such socio-demographic characteristics as age, sex, education level, and religious creed.

Prevention in oral health is aimed at reducing the prevalence and incidence of oral diseases. There are three levels: primary, which is achieved through promotion and specific protection; secondary, which involves early diagnosis; and tertiary, which is concerned with limiting disability.

Satisfaction refers to the patient's opinion of the care; information provided regarding the management of illness, the overall quality of care, attitudes and practices formed by experience using the service, and the perceived resolution of necessity.

The level of knowledge is the learning that has been acquired estimated on a scale that is either qualitative (e.g., excellent, good, fair, or poor) or quantitative.

The level of knowledge on prevention in oral health is the basic understanding of anatomy, the physiology of the mouth, prevalent diseases (i.e., caries, periodontal disease, and malocclusion), and prevention. For purposes of this investigation, it also involves the relationship between pregnancy and dental care.

Use refers to the actual use or cash health services. It covers a broad range of experiences and processes regarding place care, type of service used opportunity, continuity, and comprehensiveness.

Assumptions

The proposed study assume that the participants are representative of the population under investigation and that they share a common culture, customs, education level, and way of life. People who shared a common way of life would also share problems and factors that may lead be conducive to oral diseases. The African American participants are assumed to be from economically deprived populations that have relatively lower education levels and less financial resources in general. It was assumed that all the participants have an unequal understanding of the nature of the study and that their ability to communicate does not inhibit the semi-structured interview process. In other words, it was assumed that all the participants would understand the semi-structured interview questions well and would be able to communicate their thoughts and experiences.

Limitations

There are some limitations that would likely affect the reliability and generalizability of the findings from the proposed study. The first major limitation was the low number of

participants who will be selected to take part in the interviews. This study intended to use about 15 to 20 respondents to gather the information needed to answer the research question. The low number of interviewees may not act as a true representative of the African American population in Durham. The second limitation was that the qualitative approach to research may make it difficult for the researcher to maintain, demonstrate, and evaluate rigor (Anderson, 2010). This challenge was attributed to the fact that qualitative research may lack statistical strength because it uses the views and opinions of the participants to answer research questions (Anderson, 2010). The thirds major limitation is that the presence of the research during the data collection process would affect the responses that participants would give during interviews. In the long run, the presence of the research would determine the findings of the study as well as the conclusions made from the research data (Anderson, 2010). Finally, the issue of confidentiality and anonymity would present a significant problem when presenting the findings of this study. This shortcoming came from the fact that the proposed study would rely on human participants and responses given during interviews to assess the to the answer the research question (Anderson, 2010).

Significance of the Study

Health professionals pay particular attention to oral health care as a component of overall health (Dye, Li, & Thornton-Evans, 2012; Dye et al., 2015). Barriers to accessing oral health care account for relatively fewer referrals to dentists (Bahadori, Ravangard, & Asghar, 2013). Given the significance of perceptions of these barriers (Rozier et al., 2003; Biordi et al., 2015), there is a need to analyze them in the context of African American children residing in Durham County, NC.

A qualitative study of perceptions of African American parents would help to increase understanding of factors related to access to oral health care (Liang et al., 2013). Their perceptions would help to explain perceived barriers to oral care of their children, who are reported to have a high incidence of oral diseases (Liang et al., 2013). This understanding would contribute to improvements in efforts to eliminate barriers facing African American parents and can lead to more culturally sensitive educational and outreach programs by oral health care professionals.

Social Change Implications

Social factors are an important part of the health-disease process that contributes its varying evaluations (Martino, 2011). Diseases are apparently related to the lives of individuals, along with genetic and physiological factors. As a consequence, the concepts and lifestyles in the health belief model began to be the subject of medical sciences in the second half of the twentieth century, including resizing the concept and thus the determinants of health. Theseideas have contributed to better understanding and the operationalization of non-biological factors involved in the health-disease process and are an integral part of oral health (Martino, 2011). A better understanding of the perceived barriers to oral health may be of help in understanding the differences in targets set by health officials. Health provision gives people the means to improve their health and to exercise greater control over it. Individuals or groups must be able to identify and to realize their aspirations, to satisfy their needs, and to change or adapt to the environment to achieve a state of complete physical, mental, and social well-being (Martino, 2011). Provision is a positive and holistic concept that does not focus on a specific disease but rather seeks overall improvement in health. Understanding the perceived factors may, therefore, help to elucidate the particular factors that should be modified to improve oral health status.

Oral health tends to affect a person's overall health and wellbeing. Furthermore, it influences the functioning of the society by impacting on the quality of life, level of activity, physical comfort, appearance, and self-esteem (Martino, 2011). According to Martino (2011), social and behavioral factors can significantly affect people's oral health. Some of the social factors that play a critical role in determining the degree of oral health and wellbeing in a society include nutrition practices, feeding, and oral hygiene. Literacy levels, parenting practices, access to healthcare services, and socioeconomic factors. Wright (2015) posits that enhancing the social capital of the members of the society through various initiatives such as better involvement in the healthcare systems, oral health promotion, and education contribute to positive health outcomes. Furthermore, it drives the health quality agenda by promoting the quality of care that member of a society access when they are in need. Understanding the perception of African Americans on oral health will help in developing mechanisms that will lead to better health outcomes among this section of the American population (Martino, 2011). Furthermore, it provides vital insights that will contribute to the realization of health care quality in the American society.

Summary

There are disparities in the oral health status in different communities of North Carolina (Mansfield, 2015). African American children are the most deprived community in the state, owing to such factors as low levels of income, education, awareness, and dental insurance (Mansfield, 2015). There remains a pressing need to investigate the perceptions of the African-American parents regarding the barriers to the oral health. This qualitative study explores the perceived factors, which, if addressed, may bring about a positive change in African Americans' oral health.

Chapter 2: Literature Review

This dissertation intended to investigate the perceptions of barriers to oral care among African American families in Durham, North Carolina based on their individual experiences and observations. Dental care is a serious problem for African Americans living in the state of North Carolina (Mansfield, 2015). It is important to include the experience of the target population for a better understanding of the real cause of disease, and how the African American families can change their oral health seeking behavior. Many researchers investigated numerous factors that may act as barriers to accessing oral health care. Surprisingly, no study has included the point of view of the target population. This study utilizes the grounded theory approach to assessing the opinions of African Americans through their understanding.

This chapter surveyed the work conducted by researchers to address the factors of poor access to oral care in North Carolina and other parts of the world. The synthesis of review revealed some themes which helped out to formulate a theoretical framework for this study. This literature review comprises four sections: literature search strategies, themes that emerge from the literature review, the conceptual framework, and a survey of oral health status in the United States and North Carolina in particular.

Literature Search Strategy

The literature discussed here was retrieved using various search engines, including Google Scholar, Medline, ProQuest, EBSCO, and the U.S National Library of Medicine. The search was in general restricted to the articles published between 2000 and 2016, though literature regarding the health belief model, which was the main theory used for this study, was reviewed going back to 1970.

The keywords for this study were: *health belief model and oral care, oral health status, the oral health of African Americans, factors of oral health, quality of life and oral care, the oral health of children,oral health of American children, disparities in oral health in different communities,*and *their experiences in oral health care*. I excluded the results published in the languages other than the English.

Themes

For this literature review, I have covered the following subjects.

1. Oral Health Disparities
2. Quality of Life and Oral Health
3. Factors of Oral Health
4. Perception of People and Oral Health

Oral Health Disparities

Research on the disparities in oral health has been the focus of many researchers, for instance, Kaur et al. (2016), Fisher-Owens et al. (2013), and Atyeo (2016). Kaur et al. (2016) assert that oral health is essential for overall health and well-being of Americans and is accessible to all. However, not all Americans citizens are achieving the same level of oral health. Despite safe and effective measures to maintain oral health from which most Americans have benefited in the last half of this century, many, especially the people of North Carolina, continue to suffer needlessly. Oral disease can cause serious complications in an individual state where its social and financial costs significantly diminish the quality of life. Dental and oral diseases are a silent epidemic that affects the poorest and most vulnerable citizens, such as the children of minorities (Fisher Owens et al., 2013).

Fisher-Owens et al. (2013) reported that the reasons for the disparities in oral health are complex. In many cases, socioeconomic factors are the leading causes while in other regions the disparities are aggravated by a deficiency of community programs, such as water fluoridation. People may lack conveyance facilities to a clinic, and their schedules may not be flexible enough to meet their health needs outside of working hours (Fisher-Owens et al., 2013). The physical disabilities and other diseases can also limit access to these services. The lack of resources to pay for the treatments, whether individually or through public or private insurance, is another critical barrier (Fisher-Owens et al., 2013). Fewer people have dental insurance compared to those with health insurance, and many others lose coverage when they retire (Fisher-Owens et al., 2013). Public dental insurance programs are often inappropriate. Another principal obstacle to seeking and obtaining professional dental treatment is the limited understanding regarding the importance of oral health (Fisher-Owens et al., 2013). Health insurance is a resilient predictor of access to dental treatment. Uninsured kids are approximately two-and-a-half times less likely to receive treatment than insured (Fisher-Owens et al., 2013). Children from uninsured families are more likely to have unmet treatment needs than children with public or private insurance(Fisher-Owens et al., 2013).

Finlayson et al. (2010) reported that oral health disparities in the United States of America are more pronounced and prevalent among the racial minority groups and socio-economically challenged members of the society. Finlayson et al. (2010) conducted a study to gather evidence that could help in understanding the overall level and patterns of oral health disparities in the US. They considered representatives from the White, non-Hispanics, Caribbean Blacks, and Black Americans communities. Using the selected sample population, the researchers carried out a logistic regression analysis of the oral health data collected from the

National Survey of American Life (Finlayson et al., 2010). The study revealed that people living in neighborhoods with sufficient resources were less likely to report poor or fair oral health. Furthermore, they had higher self-esteem and mastery of good oral health practices compared to those in poor neighborhoods. Based on the outcomes of the analysis, Finlayson et al. (2010) concluded that socio-economic factors affect and contribute to oral health disparities in the US. Furthermore, they noted that the disadvantaged communities and racial minorities were at higher risk to report poor oral health outcomes as compared to the rest of the society (Finlayson et al., 2010).

Atyeo (2016) described dental caries as one of the most challenging diseases that children face in Durham County, and understanding the parents 'perceptions of the determinants of oral health can contribute to improvement in this regard. In other cases, the problem is exacerbated by the lack of community-based programs, such as hydrocarbon polymers of drinking water (Atyeo, 2016). Further, potential patients may have difficulty reaching a clinic, and physical disability and other diseases can limit access to services (Atyeo, 2016). The lack of resources to pay the costs of treatment, both in the enclave and through individual insurance, and the General Assembly in the field of oral health General Programs and dental insurance are usually insufficient (Atyeo, 2016). There is a major impediment in seeking to obtain an oral treatment in terms of the lack of awareness regarding oral health importance (Atyeo, 2016).

Quality of Life and Oral Health

The quality of life and its impact on oral health has been focused by the researchers like Greenwood and Holt (2014), Marmot and Bell (2012), Arrow and Klobas (2015), Jin et al. (2016), Sharma (2016), and Weening-Verbree et al. (2013). These researchers explain that how the quality of life regulates the oral health seeking behavior and affordability and ultimately

impacts on the oral health. According to Greenwood and Holt (2014), improving the standard of living, defined as the degree of satisfaction of the needs and requirements of a community, is a priority around the world, in developed and undeveloped countries. Assessing standards of living is especially complicated because of the constantly changing demographics, ecological, social, economic, cultural and political order. Marmot and Bell (2012), on the other hand, explained that the most disadvantaged health groups have limited political, economic, and social power and endure poorer living conditions, fewer opportunities, and limited access to health care. The immigrant and indigenous populations, in particular, are subject to challenging socio-economic conditions that give rise to a greater incidence of health problems (Greenwood & Holt, 2014).

Arrow and Klobas (2015) asserted that the quality of life of low-income families also affects the oral health of children in terms of living conditions, lifestyle, diet patterns, and affordability of health care. This perspective may help in understanding the cause of dental caries in African Americans as well. Sanders (2012) reported that failure to treat dental caries leads to pain, infection, and tooth loss. Any study that can help in treating dental caries will contribute to lessening the sufferings of society. Liu, McGrath, and Cheung (2014) examined the relationship between oral health-related quality of life and endodontic factors. The researchers conducted an assessment involving 412 patients seeking endodontic treatment in healthcare facilities. The results showed that the occurrence of dental problems requiring endodontic treatment was associated with poor quality of life. Like Arrow and Klobas (2015), the study by Liu, McGrath, and Cheung (2014) linked the frequency and high prevalence of the oral health problems of socioeconomic status.

Some researchers have widely linked oral health to the quality of life of a given community or section of the population (Sischo, & Broder, 2011; Bennadi & Reddy, 2013).

Sischo and Broder (2011) conducted a systematic review to explain the impact of oral health on quality of life. The researchers collected evidence from previous research articles published in electronic databases such as ProQuest and Medline (Sischo & Broder, 2011). The researchers limited the search to studies published between 1990 and 210. Longitudinal, descriptive, clinical trials and randomized control studies were included among the sources used to address the research question. Sischo and Broder (2011) noted that although the issue of oral health-related quality of life is a new field n dental research, available evidence suggests that oral health has a direct impact on quality of life. More specifically, it impacts on an individual's emotional well-being, functional well-being, satisfaction, and sense of self (Sischo & Broder, 2011). Another systematic review by Bennadi and Reddy (2013) reported that oral health impacts on people's physical appearance, self-esteem, and overall wellbeing. In the long run, it shapes how people live their lives and go about everyday activities. Bennadi and Reddy (2013) further noted that educating societies on proper oral health practices leads to desirable health outcomes and improve the quality of life of the community in question.

Jin et al. (2016) observed that the high prevalence of and variation in oral diseases, along with differences in living conditions and dental care, had led various authors to develop predictive models for these diseases. Satisfactory results applying these standards have, however, been hard to come by because, in general, outcomes have been variable and unreliable, or inapplicable in practice (Jin et al., 2016). On the other hand, it is considered unlikely that the same group of predictors is equally relevant in a global perspective; it does, however, appear that some predictors may be useful in identifying groups at high risk that may benefit from a particular and extraordinary intervention (Jin et al., 2016). In any case, a model predictive of disease must be sufficiently sensitive and specific to identify simply, efficiently, and clearly

individuals who are at risk of falling ill so as to direct the appropriate preventive measures toward them (Merrell & Buchanan, 2006).

According to Sharma (2016), the beliefs of individuals influence the development of healthy behaviors or health risks. For oral health prevention programs that are promoted by an educational community, there is need of health measurement instruments adapted and validated to specific socio-cultural contexts. Weening-Verbree et al. (2016) explained that oral diseases result from inappropriate behavior. The frequency of brushing reported was favorable, as a little more than half of the participants responded brushing their teeth three or more times a day (Weening-Verbree et al., 2016). Most of the study population had visited a dentist, though a significant number had not done so in over six months, a frequency that is not favorable for oral health (Weening-Verbree et al., 2016). However, failure to visit a dentist was not attributed to displeasure with the dentist or the treatments; rather, almost all of the participants reported being pleased by the dentist and treatments (Weening-Verbree et al., 2016).

Factors of Oral Health

Many researchers, including Abanto et al. (2016), Gururatana, Baker, and Robinson (2014), Ismail et al. (2013), Genco and Borgnakke (2013), Walker & Jackson, 2015, Llena et al. (2015), Norwood et al. (2013), Collins et al. (2016), Biordi et al. (2015), Da Fonseca (2012), and Hoffmeister et al. (2016), Polk, Weyant, and Manz (2010), Marsh et al. (2015), and Marsh, Mano, and Tsamir (2012), have strived to identify the factors responsible for poor oral health.

The work of Abanto et al. (2016) suggested that a determination of risk for caries is a fundamental part of the decision-making process. This determination helps to establish the need for additional diagnostic procedures, to identify those who require control measures, to evaluate these control measure, and to guide the treatment plan and determine the frequency of

monitoring (Abanto et al., 2016). The determination of individual risk must be systematically performed because the factors associated with the disease may vary (Abanto et al., 2016).

Gururatana, Baker, and Robinson (2014) explained that the scientific community fully accepts the multifactorial nature of oral diseases. Poor oral health is attributable to certain factors acting at early stages of development. Some of these risk factors include poor oral hygiene, including plaque and incorrect dietary habits, schooling, and parental occupation (Gururatana, Baker, & Robinson, 2014). The association among these factors are very complex, as some function as protectors and others do not act in isolation but together to produce significant health effects (Gururatana, Baker, & Robinson, 2014).

Ismail et al. (2013) reported that the frequency of oral hygiene practices is low, including among children. This situation is mainly due to a lack of knowledge regarding the benefits of preventive practices in children, such as the use of dental floss and mouthwash. Access to these and other measures may be limited by the costs involved (Ismail et al., 2013). Besides, the author noted that the access to science-based preventive regimens not only reduce the chances of recurrence of oral health problems but also facilitate the restoration process (Ismail et al., 2013). Thus, preventive practices and regiment are very critical in the fight for better oral health among members of different societies around the county (Ismail et al., 2013).

Genco and Borgnakke (2013), studying various population groups, have linked major oral diseases, including caries, periodontal diseases, and dental abnormalities, with multiple risk factors. The beliefs of a culture are transmitted from one generation to another through such institutions such as the family, school, and church. Cultural traditions preserve a collective memory of experiences that have been beneficial or detrimental to the group (Genco & Borgnakke, 2013). Additionally, individuals belong to different social groups (Genco &

Borgnakke, 2013). The beliefs associated with these groups and their traditions are the focus of the most advanced methods used to predict changes in behavior, and in this context, the health belief model (HBM) has been utilized for many years to investigate them (Walker & Jackson, 2015).

Llena et al. (2015) reported that children who consume a cariogenic diet experienced a gradual deterioration in their oral health. A balanced diet is required for children to develop healthy teeth that are resistant to decay. Dairy products maintain levels calcium and vitamin D necessary for strengthening teeth and bones (Llena et al., 2015). Bread and cereals provide vitamin B for growth, whereas fruits and vegetables that contain all the essential vitamins which are required to maintain healthy gums. In addition to the broad range of minerals and vitamins, healthy gums need plenty of calcium, phosphorous, and proper levels of fluoride in order to prevent the oral diseases (Llena et al., 2015).

Norwood et al. (2013) stressed that oral hygiene is the key to successful treatment of gingivitis and that periodontal disease can be attributed to inadequate hygiene. Since dental plaque plays a key role in the development of dental caries, oral hygiene is key to controlling decay in a high-risk patient (Norwood et al., 2013). Failure to maintain oral hygiene because of a disability or age or illness increases the risk of tooth decay. Thus, patients who infrequently or ineffectively clean their teeth and have reduced manual control may be at high risk (Norwood et al., 2013).

Collins et al. (2016) carried out a cross-sectional analysis to determine whether the older people living in poverty and are from minority ethnic or racial groups experience higher rates of oral health outcomes. In this case, the researchers measured the poor oral health outcomes using the oral health quality of life and the number of permanent teeth. Collins et al. (2016) used linear

and logistic regression analysis to study the link between the oral health and the predictors of interest. The researchers reported that the formation of habits favorable to health in a person's early years tends to yield positive results over time and encourage parents and guardians of minors to be active in preventive interventions (Collins et al., 2016). During the preschool period, emphasis should be placed on actions that promote self-care and responsibility for oral health (Collins et al., 2016). It is during this time, between two and four years, that health centers monitor juveniles.A pediatric team must be trained in oral health to establish a synergy in the health monitoring (Collins et al., 2016). Therefore, it is very likely that at two years of age, children have their first contact with the environment of the dental clinic, and with the attention of a professional, at which point the professional's attitude and behavior throughout this new experience are relevant (Judah, Gardner, & Aunge, 2013).

Biordi et al. (2015), Da Fonseca (2012), and Hoffmeister et al. (2016) described how low-income families are considered to have poor oral health owing to a diminished ability to afford curative and preventive measures. The study by Biordi et al. (2015) involved a sample population of 4360 children below the age of five. The researchers offered education, dentist referrals, and oral health assessments to patients who took part in the study. The primary endpoint, in this case, was access to oral care while the secondary endpoints were the application of the fluoride varnishes and involvement in oral health care training. The results showed that expansion of access to dental care through dietitian-nurse practitioner cooperation enhanced the access to preventive care. Furthermore, the study reported that cost is one of the factors that influence access to preventive oral health care services. The findings of Biordi et al. (2015) are supported by the results of a more recent cross-sectional study by Hoffmeister et al. (2016) that explored some of the main factors that influence oral healthcare practices among children in

Chile. Hoffmeister et al. (2016) found out that socioeconomic status affected the distribution of oral health problems in the society. Furthermore, it affected the ability of children to access quality preventive oral health care.

Polk, Weyant, and Manz (2010) carried out a cross-sectional study to examine whether socioeconomic status contributes to the disparities in oral health problems in adolescents living in Pennsylvania. Furthermore, the researchers intended to determine whether there was a link between socio-economic status and disparities in preventive interventions and oral hygiene (Polk, Weyant, & Manz, 2010). The study showed that that the factors affecting oral health disparities are interlinked with multiple aspects of social frameworks (Polk, Weyant, & Manz, 2010). Polk, Weyant, and Manz (2010) also noted that despite the fact that socioeconomic factors influence the occurrence of healthcare problems, preventive mechanisms such as brushing, use of sealant, and flossing could reduce the burden of the conditions. Similar conclusions were reported in the study by Marsh et al. (2015) that involved reviewing existing literature on the oral health of immigrant societies. Marsh et al. (2015) noted that existing research evidence showed that newly-arrived migrant minorities had limited economicresources. Furthermore, they tend to live in relatively inexpensive areas that may lack health facilities. Understanding migration and related factors may also help to elucidate the perceptions of African American parents. According to Mesch, Mano, and Tsamir (2012), minorities often do not have access to health insurance, mainly owing to a lack of knowledge regarding insurance policies. All the discussed factors regulate the oral health and controlling them may help in improving the oral health status. Still, the oral health status is not at par with the desired levels mainly due to lack of knowledge what the people perceive about the oral health in the light of their understanding.

Perception of People and Oral Health

The perceived susceptibility to a certain disease is also one of the determinants of oral health. The health belief model can be used to take susceptibility into account in the case of dental caries (Carrillo-Díaz et al., 2012). Sanders, Spencer, and Slade (2006) have studied beliefs about oral health in terms of attempts to develop interventions to improve the overall quality of life. The researchers used a representative sample of adults living in Australia to determine differences in dental healthcare behavior and dental attendance. Sanders, Spencer, and Slade (2006) used the health belief model to explain the link between these variables. The data utilized in the study were collected from a total of 3678 adults between the ages of 18 and 91 years (Sanders, Spencer, & Slade, 2006). The results showed that poor oral health outcomes and experiences such as missing teeth were common among poor respondents. Furthermore, proper dental care and regular dental attendance were common among adults living in more advantaged neighborhoods. Using the HBM model and the results from the bivariate analysis, the researchers concluded that personal neglect caused poor oral health among the participants (Spencer, & Slade, 2006). Thus, the HBM is a useful tool for identifying the positive and negative aspects of social and personal well-being among parents (Spencer & Slade, 2006). Furthermore, it can be used to assist members of a society in maintaining positive oral behavior and avoiding negative practices that may lead to adverse oral health outcomes.

Liu, Zhang, Wu, and Cheng (2015) conducted a cross-sectional study to examine the key features of oral care seeking behaviors and other relevant socio-demographic variables that influence dental care among middle-aged people. The researchers worked with a population of 1188 adult participant (Liu et al., 2015). The information on the oral healthcare setting behavior, as well as the relevant socio-demographic parameters, was collected through face-to-face

interviews. The results showed that the etiological of dental disease was cumulative and progressive. Thus, older members of the society tend to face a greater risk of suffering from periodontal and other dental diseases compared to younger people (Liu et al., 2015). Furthermore, the study showed that oral health seeking behavior was influenced by income levels, place of residence, as well as the level of education (Liu et al., 2015). An earlier review by Petersen et al. (2005) demonstrated that dental care and predominant treatments in a country or region at any particular time are resultants of a vast number of independent variables acting at the moment and throughout the previous period of life of the population in question. Therefore, this problem involves two dimensions: morbidity and degree of attention (Petersen et al., 2005). In brief, the level of awareness is manifested in four components: intervals between treatments, types of services provided, practice, and materials (Petersen et al., 2005).

Schroth, Brothwell, and Moffatt (2007) demonstrated that some parents might have an undesirable influence on the oral health of children if they do not take them to receive dental services. The researchers conducted a cross-sectional study involving children and their caregivers. The children were taken through a comprehensive dental screening session while the caregivers completed questionnaires related to their understanding and opinion of the dental health of preschoolers. The results of the study demonstrated that dental disease leads to health problems that affect the well-being of children from a young age. Furthermore, caregivers argued that the conditions could be addressed if identified early enough to save the patients. Schroth, Brothwell, and Moffatt (2007) recommended that future intervention strategies should involve health education programs for parents of children below three years since the effort is mainly focused on those aged five or six. Furthermore, the information on oral care of children should

be accompanied by information on self-care for the parents so that the oral condition of both is improved.

Pilling and Estes (2016) conducted a qualitative study to delineate the perceived barriers to oral health care among migrant women working in firms in North Ohio. The researchers used face-to-face interviews to collect data from fifteen migrant farm workers (Pilling & Estes, 2016). The participants were voluntary required to take part in the study through a purposeful sampling approach. All the interviews reported a broad range of access and occupational barriers that hinder them from accessing proper health care services (Pilling & Estes, 2016). The main factors that were identified in the study include cost, proximity to the healthcare settings, and national and local migrant policies. Conducting a similar study may increase understanding of the perceived factors related to dental caries by African Americans.

Theoretical Framework

A conceptual framework, either a theory or model, is a fundamental pillar of scientific understanding of public health issues and practices (Kelly et al., 2009). A theoretical framework facilitates various health problems and the ways in which individuals or groups perform and modify behaviors, as well as the social context in which health issues arise (Kelly et al., 2009). Theoretical considerations inform the design, implementation, and evaluation of strategies aimed at promoting the health of communities (Kelly et al., 2009). The elements and variables express, through concepts, definitions, and propositions, a systematic view of a phenomenon. Theories and models function as a foundation for validating particular practices or actions (Kelly et al., 2009; Solar & Irwin, 2007; Silvola et al., 2016). A model is a set of essential elements needed to represent an aspect of something that is derived from a theory or real life (Kelly et al., 2009; Solar & Irwin, 2007; Silvola et al., 2016).

The proposed study will rely on the Health Belief Model (HBM) to answer the formulated research questions. HBM entails investigating the perceptions and actions of individuals (Coulson, Ferguson, Henshaw & Heffernan, 2016). Thus, it will help in understanding the perceptions of African American community residing in Durham, North Carolina. According to Coulson et al. (2016), HBM has attracted the attention of researchers in various fields. These researchers have explored the origin of the theory as well as its significance in the healthcare practice and research (Coulson et al., 2016). A group of social psychologists who belonged to the Studies Division Conduct Office for Health Education in the U.S. Public Health Service created the HBM in the 1950s (Rosenstock, 1974; Coulson et al., 2016).

The model has several dimensions that help in investigating people's perceptions, behaviors, and actions. The susceptibility dimension of the HBM measures a person's subjective perception about suffering from a disease, ranging from those who deny any possibility of falling ill to those who think it likely that they will contract a disease. In the case of a health condition, this dimension is reformulated to include acceptance of the diagnosis and the perception of possible relapses and the illness in general. For this dimension, the people must know firsthand or have heard of the risk of a disease. Patients'optimism or pessimism can influence this perception, resulting in over- or underestimation of the frequency of a disease (Rosenstock, 1974).

Perceived severity describes a person's understanding of the seriousness of the illness, of leaving an illness untreated, and of the consequences of visiting medical clinics, as well as perceptions of pain and disability, with reference social type, family, work and social relations. This aspect of the health care experience has been associated with low predictability because it is linked to symptomatic patients with imminent health risks or previous experience concerning

disease. The other element is the perceived threat. In the HBM, a "perceived threat" triggers an action. The perception of a subject that he or she is suffering from a severe disease is sufficient to trigger an action, the particular course of which is determined by the perception of benefits (Green & Murphy, 2014).

Benefits correspond to the belief of the subject in the relative effectiveness of behaviors in reducing the perceived threat, which will then determine the course of action. The subject may perceive barriers to implementation of healthy behavior, which can be evaluated in terms of the cost of action and can be seen as dangerous, unpleasant, painful, expensive, or time-consuming. It is this dimension that is most frequently reported to impact behavior (Watt, 2002).

Certain stimuli or keys to action are essential to trigger the decision-making process. They include internal stimuli such as physical symptoms and external stimuli like media campaigns and social or familial pressures. It is assumed that various socio-demographic, psychological, and structural variables influence individual health decisions. Other authors speak of “motivation” and “importance” in determining the concern that a subject has regarding a health problem that triggers a process of behavior change. Over the years, researchers have come up with an oral health belief interview to help in exploring people's perceptions and actions in relation to specific research issues (Nakazono, Davidson, & Andersen, 1997).

Summary

I have reviewed the literature and made clear the search strategy, appropriate keywords, anticipated themes, and conceptual framework. This survey reveals that oral caries results from multiple factors that are complex and interdependent. These factors may be specific to regions and communities at different times. The health belief model can be used to assess the experience of African Americans and their opinions about the perceived barriers to access to oral care. Any

health policy addressing these factors must take into account the perception of the target community regarding a health problem.

Chapter 3: Research Method

Introduction

The purpose of this investigation was to explore the perceptions of barriers to oral care and the potential factors responsible for the increased incidence of dental caries among children in Durham, North Carolina. This chapter lays out this approach and the Health Belief Model related to a grounded theory used to explore African Americans' personal perceptions of the factors responsible for dental caries (Riggs et al., 2015). The rationale for choosing the grounded theory design and the role of the researcher in this study are explored in this chapter. Also presented is a discussion of the survey sample and the criteria for selecting participants to represent the study population. The final part of the chapter talks about the methods and instruments for data collection, the analysis process, and the ethical considerations.

Research Design and Rationale

A qualitative design is the research methodology chosen for the study. I chose this design to document and understand the perceptions of barriers to access to dental care among African Americans in North Carolina. The participants will be asked to respond to the interview based on their experiences (Appendix 1).

Dental care, as a humanistic discipline, needs research methods that focus on the care of the person (Bowling, 2014). These methods must treat each subject as an individual with particular answers and feelings. It is essential to avoid generalizations about human behavior regarding responses to various situations, including diseases. Qualitative research methods offer a range of possibilities for exploring such contexts and for providing a vision that fits better the environment on which health researchers need to concentrate (Creswell, 2013).Grounded theory, rather than being a study method, is a philosophy for understanding the real sense ofsingularities

that employs a sequence of ideas and steps that offer scientific rigor (Finlay, 2012).A qualitative method, being grounded theory in nature, aids researchers in acquiring and managing knowledge, provided that they make clear their assumptions, principles, biases, and essential notions (Gee, Loewenthal & Cayne, 2015).

Information about participant experience can be collected using a grounded theory (Pereira, 2015). I utilized this approach to document personal opinions regarding various factors that may act as barriers to access to dental care. Providers must base their care on what people feel or think when facing an event that disrupts their daily lives. This grounded theory approach focuses on people's experience with dental caries to describe the meanings of distinctiveness through analysis of their descriptions.

Systematic organization of knowledge was necessary to analyze, predict, and explain the nature or expression specific elements or phenomena to support an abstract argument that articulates a series of concepts or variables in a consistent manner. A conceptual model like the health belief model is a precise formulation that includes the elements of a representative, essential aspect of reality (Walker & Jackson, 2015). A good model incorporates the essence of the variable of interest to create a simplified representation of reality; it should offer simple and clear explanations and predictions regarding the real world. The health belief model is a comprehensive and coherent assemblage of singularities and facts that points to certain causal relationships between groups of measurable or observable variables in a grounded theory study (Patrick et al., 2006).

Heilmann, Tsakos, and Watt (2015) explained that the susceptibility is a subjective perception of the risk of contracting a given health condition, i.e., oral caries. It includes the acceptance of diagnostics and personal assessment of new susceptibilities. Essential for the

process is that the person has a perception of general susceptibility based on what he or she has learned or heard about the risk of an event. This perception is influenced by such factors as optimism or pessimism that leads people to over- or under-estimate the frequency of a disease. Severity is related to an individual's perception of how acute a disease is and the consequences of either non-intervention or treatment when the condition presents. Several studies have explored the severity of a particular disease in terms of the physical, socioeconomic, and mental effects that it can have on the person. Severity has only been shown to have an impact on individuals who are either symptomatic, present imminent threats to their health, or suffer from medical conditions with which they have some experience.

The concept of perceived threat refers to the combination of perception and susceptibility severity. A critical issue, however, is that individuals must also realize that they may have a disease even in the absence of symptoms. Modifying factors (demographic, psychosocial, and structural) and the key to the action (advice from family or friends, media campaigns, experience with the disease) are identified as essential for completing the health belief model. The cultural background of the individual primarily involves internal behavioral norms and values or attitudes shared with the larger community. The rules of a particular group, however, are not clearly defined or expressed and vary between the different members of the group. Many members of a particular group may not conform to its behaviors and standards, while others assume that all members of the community share the same behaviors, values, and attitudes. Accurate information can, therefore, be of use in applying the health belief model to understanding the perceived threats to the oral health of African Americans (Green & Murphy, 2014).

Grounded Theory Design and Background

Grounded theory is useful for research in fields related to human behavior within different social setups. Its explanatory power in relation to the various human behaviors within a given field of study makes it more pragmatic approach than the others. The emergence of meanings from the data, but not from the data itself, makes this theory a methodology for the knowledge of a particular social particularity. Similar cases with many variables but different answers are compared to see where there can be found the key to differences. According to health belief model and grounded theory design, one can predict the occurrence of a health behavior (or prevention of disease) when subjects perceive that they are susceptible to a health problem felt to be severe but responsive to treatment that is not too expensive (Weinstein, 1993). In other words, individuals' beliefs produce some degree of psychological preparation to confront a health problem. When beliefs reach a certain threshold, the action becomes more likely, as long as environmental conditions allow for it (Kirscht, 1988). In general, exogenous variables include basic beliefs, age, sex, cultural level, or knowledge about a disease (Kirscht, 1988; Brake, 2013).

Given that the field applicability of the model is very broad, some authors have been adding increasing numbers of exogenous variables and particular beliefs to it (Kirscht, 1988). Shenton (2004) considered the attitudes as behaviors that can be observed when a researcher ask someone to fill in an interview attitude. Attitudes will be revealed in terms of explanations or descriptions of participants'behavior that the community accepts and reinforces or rejects and punishes. Vohs and Baumeister (2011) considered attitude as a self-description of an individual's affinities or aversions with respect to some identifiable aspect of the medium, with the consideration that self-description is not a measure of attitude, but the attitude itself. Health

beliefs, as arbitrary relationships between behaviors, are socially generated (Coulson et al., 2016). Thus, for instance, in the case of a statement such as, “you have to brush your teeth to avoid tooth decay,” health behavior or risk (brushing teeth or not), dependent relationships of contextual functions are provided. Therefore, it is imperative to pay attention not only to health behaviors or beliefs that have manifested but also, and more importantly, to establish the different functions and the relationship between the two (Vohs & Baumeister, 2011; Coulson et al., 2016). Moreover, interpretation of health beliefs circumvents the impasse of structural approaches, gives meaning to the contradictory results in the literature and opens the topic of health beliefs up to contributions regarding the analysis of verbal behavior (Coulson et al., 2016). Thus, the health belief model, using a grounded theory approach to data collection, can help in understanding the experiences of African Americans regarding perceived barriers to accessing dental care.

Data Collection Procedures

The direct one-on-one semi-structured interview approach allows for the collection of the maximum amount of information since the open-ended questions provide an opportunity to express opinions in detail, rather than force a choice among the limited options (Alshenqeeti, 2014). The experience of the population under study can thus be fully comprehended. This approach also enhances the rapport between the participants and the researcher by fostering personal participation and involvement and encouraging the participants to express their experience without any bias (Alshenqeeti, 2014).

The Role and Background of the Researcher

The researcher belongs to the African American community and, therefore, anticipates that the participants will be more at ease and more likely to provide the unbiased information

than would be the case if the researcher were not part of this community. Prior knowledge of culture, norms, and dental care practices will help the researcher to question and understand participants' responses in a pragmatic way. People often show reluctance to participate in a study that requires them to answer questions about their income or economic resources. Walden's ethical guidelines will accordingly be observed in the collection of data to minimize the chances of error.

Study Population and Setting

The target study population is the parents of the African American children agedbetween 6 and 14 years who either have suffered from dental caries or whose children are thus afflicted are eligible to participate in the study. The one-on-one semi-structured interviews captured respondents' points of view concerning the specific particular subject matter, specifically the poor oral health of African American children. This framework was used to collect information from the respondents provided that assurances they could know the purpose of the study and guaranteed that the data will be confidential. These are important aspects that researchers adhere to so as to comply with ethical norms. Interviews highlighted multiple factors that may be helpful in understanding and discussing the results. Analysis of the results improves understanding of the significance of oral health status within the African American community residing in Durham City, North Carolina.

I posted flyers to invite volunteer participants on the places where African American often visit, including churches, dental clinics, school notice boards at parent-teacher meetings, and as an advertisement in a local newspaper. The flyer contained the short description of my study, assurance of confidentiality and monetary benefit of $10 per participant, along with my name, contact number and email and details of the university representative. Once potential

participants contact me and inquire about the particulars of the study, the details were provided in comprehensive yet polite manner. After that, they will be given the consent form before participation in the study. Upon returning the signed consent forms, 10 participants were selected for a final interview.

Selection Criteria for Participants

The parents of the African American school-age children who either have suffered from dental caries or whose children are thus afflicted are eligible to participate in the study. A sample of 10 participants was selected on the basis of the absence of any other disease, stable mental health and memory, and status as an African-American resident of Durham for at least 20 years. The sample size is sufficient to avoid possible lacuna in data collection.

Pilot Testing

Qualitative studies involve direct, open-ended guiding questions that may result in personal biases, and since this method captures the personal experiences of the participants, their perceptions may result in outliers. The utmost effort will be made to increase the validity of the interview through pilot testing followed by adjustment of the interview Pilot testing. The interview is necessary to identify and address any flaws, limitations, or weaknesses of the interview items. Particular emphasis was given to ensuring that the language and structure of the interview do not present difficulties for the participants.

Interview Protocol

I used a semi-structured open-ended interview. This method is used to collect focused, qualitatively recorded data (Creswell, 2013). Besides, the data gathered through this process can reveal relevant descriptive information on the personal experiences of participants (Creswell, 2013). This interview consists of only seventeen guiding questions. The purpose of the research

will be explained to the participants, along with each question. I made the utmost effort to assure participants that the information obtained from them will be kept confidential and only be utilized for this research study.

Data Collection Method

Data Collection

The data drawn from methods associated with a grounded theory to collect and analyze data from open-ended questions was recorded with a pocket held tape recorder. The advantage of such recorder is that its presence does not hurt the participant, and he or she feels free to answer the questions like a casual conversation. The coded audiotape will be transcribed and later analyzed with the help of a statistical analysis tool for qualitative studies known as “Nvivo”.

Data Analysis Plan

I followed Sbaraini et al. (2011) who used HBM in dental practice. The data collection procedure followed the sequence of the open research question, ethical approval of research questions from IRB, first purposive sampling, and sampling strategy, pilot testing interviews, collecting data, coding of emerging themes in agreement with components of HBM. Finally, content analysis enabled the researcher to map and refine the key concepts. All the questions were labeled according to the aims and objectives of the research and presented for qualitative data analysis. The software " Nvivo”, was used to analyze the collected data and to identify different themes. The first step was to simplify or select information to make it more comprehensive and manageable. Data reduction tasks are reasonable procedures that usually consist of categorization and coding; Identifying and differentiating units of meaning. Also, the reduction of data means selecting part of the material collected, based on theoretical and practical criteria, as well as when the researcher summarizes or outlines field notes. The analysis

of qualitative data involves the segmentation in singular elements. The criteria for dividing information into units can be very diverse. However, the most widespread method is to separate segments that talk about the same topic or theme, with the difficulty of finding fragments of different lengths, to which the distinction between record units (fragments alluding to the same theme or topic) and units of enumeration (unit on which quantification is performed in lines or minutes). The identification and classification of elements are the activity that is performed when we categorize and encode a set of data. Categorization, the most important tool of qualitative analysis, consists in classifying conceptually the units that are covered by the same topic with meaning.

The coding is the physical or manipulative process by which each unit is assigned a code or codes. These marks can be numbers or, more usually, words or abbreviations with which the categories are labeled. The establishment of groups may result from an inductive procedure that is, as the data are examined, or deductive, having established a priori the category system on which it is to be coded. The identification and classification of elements are linked to the synthesis or grouping. Categorization is itself a task of synthesis. These synthesis activities are also present when groups that have something in common in meta-categories are grouped, or when Meta codes are defined that group a set of codes (Fox, 1981). It can build an excellent network with which I can visually connect selected passages, memos, and encodings, in a way that allows building concepts and theories based on visible relationships and revealing other relationships. It also allows using networks to explore and discover the “texture” of data i.e. interrelated meanings. Additionally, it helps to support research while maintaining control over the intellectual process

Ethical Procedures

Human Subjects Protection

The study intended to use humans as research subjects. Therefore, all the ethical considerations regarding the use of language, dialect, and body language as outlined in Walden University's human subject protection guidelines were observed. Approval of the interview will be sought from the Walden University's Institutional Review Board (IRB). Participants were given verbal and written assurance of the confidentiality of personal data.

Treatment of Data

The participants received assurances about the confidentiality of the data, which will be used for this research only and will be kept in the custody of Walden University to ensure its security. No records, whether in the form of notes or audio tapes, will be used for any study other than this one without prior permission from the participants.

Summary

This chapter has explained the research design and the reasons for its selection, along with the study population, its size, and the criteria for participation and selection process for the participants. The items of the interview protocol have been explained as well as the details of the pilot study, the data collection and analysis methods, and ethical considerations regarding treatment of the subjects and data confidentiality.

Chapter 4: Results and Analysis

Introduction

The purpose of this qualitative research was to explore and understand the perceptions of parents about barriers to children's oral health. Dental care is an issue of concern for North Carolina residents, especially African American families This particular group is prone to a wide range of oral problems that affect their normal health and wellbeing. The trend is attributed to diverse factors that include lack of awareness, high poverty levels, migration, and social exclusion (Dye et al., 2015). It is against this background that organizations and government agencies in the region try to come up with programs directed towards the prevention of oral health challenges. The interventions are targeted at specific areas like schools (Rozier et al., 2010). Despite this being the case, children coming from low-income neighborhoods and families continue to suffer from complications like dental caries (Dye et al., 2015). Some of them are unable to get access to quality dental services because of the family's socio-economic status. In the end, the trend has contributed to an increasing disparity in oral health in Durban. The focus of this dissertation was to investigate the perceptions of barriers to oral care and issues that lead to increased incidence of dental caries among children in the African American community living in Durham, North Carolina. The study used open-ended questions to get the opinions and understanding of the participants with regards to oral health. Moreover, the study aimed to examine the potential barriers to excellent oral health among African American children. Focus on parents was important to analyze their point of view, beliefs, and their level of comprehension of oral health.

This study intended to fill this gap by specifically analyzing the perspectives of African American parents who reside in North Carolina to determine the level of knowledge and

awareness about the significance of oral health and care. I gathered evidence that could help in understanding barriers to health care. Throughout the study, the focus was on exploring and analyzing perceptions of parents about barriers to children's oral health by answering the following research questions:

RQ1. What are African American parents' perceptions of barriers to dental care?

RQ2. What do African American parents consider to be adequate oral health care for their children?

Chapter 4 presents results the of 10 interviews with parents of children between 6 and 14 years. It starts by providing a brief overview of the study before talking about the pilot study and the setting in which the research was done. Next, it presents the participants' demographics, data collection, and data analysis processes that defined the project. The subsequent part of the chapter talks about the trustworthiness of the evidence that was gathered before presenting the outcome of the data collection and analysis process. The final part gives a summary of the entire chapter and how it relates to the research questions.

Pilot Study

Before the start of the actual data collection, it was imperative to conduct a pilot study and gather critical evidence that could improve the quality of the results. The pilot study ensured that the participants could understand the designed interview protocol and questions to be used in gathering data. The interview protocol was tested by selecting two participants who had already agreed to participate in the research by responding to flyers that I posted for recruitment. At the respondent's convenience, the interviews were done at their home after their willingness to take part was re-verified. During the pilot study, it was also imperative to ask questions and check whether they could be easily comprehended by the respondents in terms of tone, language,and

meanings. The interviews were audio recorded for detailed examination and analysis. Moreover, suggestions for amendments in guiding questions were welcomed during the piloting process.

The pilot study disclosed that the questions that had been formulated for the interviews could easily be understood by the interviewees. The audio-recorded interviews were listened to and transcribed for further analysis. All responses were relevant to the context of the study, which advocated the appropriateness of the interview protocol. There was no need to make amendments of any kind and the recorded interviews were justifiable for inclusion in the actual study as well. Finally, it is imperative to state that the confidentiality and privacy of the information gathered during the pilot study were also guaranteed by the researchers. Thus, the audiotapes were stored in a secured locker to avoid unauthorized access. The aim was to ensure that the data were only used for the purpose of this study.

Setting

The target population for this research was parents of African American children between 6 and 14 years with dental caries or those with a history of such problems were eligible to participate in the study. I conducted one-on-one semi-structured interviews to collect data and relevant information from the respondents. I was open to meeting at any neutral location the participant suggests. Furthermore, I made every effort to assure that my presence would not expose the participant or family to any risks. I made extra provisions to ensure privacy during the interview, and to ensure that I was not imposing on the family by letting the interview run long or staying beyond my welcome. The direct one-on-one semi-structured interview at aconvenient

location allowed for the gathering of high quality and appropriate information that could be used in answering the research questions and achieving the objectives of the project.

Even after agreeing on the setting and location for the interview, it was important for the researcher to create an environment that the respondents would find appropriate and comfortable. In addition, I assured the respondents that the data would be kept safe and secure at all times. Since I am an African-American, the participants were at ease and went ahead to provide impartial information that would be critical to the answering of the research question. My prior acquaintance and understanding of the African American culture, norms and dental care practices created a conducive setting for the respondents to give vital and comprehensive information during the interview sessions. In addition, it reduced the reluctance of the respondents to give individual information and responses that were needed in answering the research questions.

Demographics

The participants were 10 African American parents of children aged 6 to 14 years and who lived in Durham, North Carolina. The study population consisted of the parents of the African American school-age children with or have suffered from dental caries. The respondents were chosen based on the absence of any other disease. Furthermore, they were required to have lived in Durham. The demographics and characteristics of those who took part in the study are shown in Table 1 below. The respondents were assigned a unique pseudonym to mask their identity and make sure that the responses gathered could not be traced to them. Furthermore, the

decision was part of the privacy and confidentiality efforts that were made in the course of the study.

Table 1 presents number and demographics of participants.

Table 1 *Demographics of the Participants in the Study (N= 10. The participants were assigned pseudonyms)*

Participant Code	**Gender**	**Age**	**Marital Status**	**Children**	**Education**	**Annual Income ($**
James	Male	46	S	2	College	60,000
Nancy	Female	40	D	3	College	55,000
Mark	Male	30	M	1	College	50,000
Jennifer	Female	25	S	3	SDP	10,000
Michael	Male	52	M	2	College	55,000
Robert	Male	32	M	1	College	40,000
David	Male	55	D	3	SDP	20,000
Lisa	Female	30	M	1	College	55,000
Sandra	Female	38	M	2	College	50,000
Shirley	Female	34	M	1	College	50,000

S= Single, M= married, D= Divorced, SDP= School dropout

Data Collection

The data collection process was granted IRB approval on November 26, 2017 (approval number 11-27-17-0197097). Participant recruitment lasted for twenty days between January 3, 2018, and January 22, 2018. I displayed flyers as an invitation to participate in the study at

prominent places where African Americans often visit, including churches and the civic center. The participants who showed interest in the study informed me through telephone and, when we met, I explained to them the objectives of the study, benefits of participation, and procedures for data collection. Ten individuals agreed to participate and four of them declined participation for various reasons. All the ten respondents received the informed consent statement and I asked them each to sign two copies, one for participants to keep and the other for my records. Thus, ethical procedures presented in Chapter 3 were fulfilled. All participants shared information regarding their demography willingly during the interview, although it was not the part of the interview protocol. The 10 audiotaped interviews were transcribed and identified by pseudonyms. The real name of each participant was not used to protect their identities. The audio recordings and the transcribed interviews were duplicated as a back-up and stored in a secured locker. Thus, privacy was ensured during each stage, including data collection, analysis, presentation of results, discussion, and post-study records.

Data Analysis

The open-ended questions in the semi-structured interview protocol were devised in accordance with the actual research questions. Thematic analysis was carried out to ascertain how the African American parents supposed barriers to accessing oral care, and to determine the level at which the parents consider oral care to be suitable. The qualitative data analysis software NVivo, mentioned in Chapter 3, was used to perform the analysis. Each interview transcript was imported into the software and each transcript was coded to perform analysis as described in Chapter 3. Coding helped to organize statements into themes to categorize the perceptions of participants. Transcript segments emerged that revealed meaningful and relevant themes. The categories provided context and distinguished the interactions and relationships between the

codes. The larger categories were formulated with the help of frequent appearing themes. The process went on until saturation and determination of clear themes were achieved. The thematic analysis continued, which helped to generate explanations regarding the participants' levels of awareness regarding oral care, perceptions of oral health as a threat, vulnerability, perceptions of barriers, and perceived benefits if those barriers were eliminated. The emergent themes helped to explain the phenomenon and understanding of the research questions.

Evidence of Trustworthiness

At the end of the interviews, all the audiotapes were transcribed to facilitate the data analysis process. Textual transcriptions were made a word for word to improve the trustworthiness of the evidence presented in the dissertation. Moreover, I limited personal and subjective bias in the data analysis process to improve the quality of evidence presented in the subsequent sections. Finally, the data were reviewed and cross-checked by the dissertation chairperson to identify missing information.

Presentation of the Emerging Themes

The data analysis process focused on identifying primary themes related to the two research questions. The table below sets out ten major themes that emerged at the end of the data analysis.

Table 2: Thematic Analysis of the Coded Interviews

No	Categories	Coded segment frequency
1.	Oral health problems	20
2.	Barriers to dental care	22
3.	Distance barriers	14

4.	Work-related barriers	8
5.	Greatest perceived barrier	28
6.	Lack of money and dental insurance	24
7.	Poor past experiences of the children and lack of expertise	8
8.	Views of parents regarding oral health	26
9.	Practices of oral care followed by the African American children	30
10.	Attitudes	24

Research Question 1

The first research question in this study was: What are African American parents' perceptions and barriers to dental care? In this case, the focus was on determining the barriers to good oral health and understanding the perception of the respondents regarding the same. During the interview process, the ten participants gave a wide range of answers to the questions. A careful analysis of the responses yielded seven major themes related to research question 1.

Theme 1: Oral Health Problems

The ten participants responded to the question, "How do you rate the oral health of your children?" All ten participants felt that their children were at risk of experiencing oral health challenges. The respondents stated that they strive to ensure that their children eat healthy food so that they can avoid dental issues and problems. In some cases, however, the problems still emerge when children eat unhealthy foods. James, for instance, stated that "I don't buy juice and I don't buy soda. I don't drink soda, we try to eat healthily, but they are teenagers so they can buy things on their own or drink when I am not around all they want, but I try to teach them about the harm of high sugar content in foods and to always brush, rinse and floss." Mark stated that "I

think it is when they are like, like a young child, like 5, 6 and 7 because you know there is a lot of candy, a lot of snacks, a lot of trips. Because you have to give them that stuff when they are young. Michael stated that “even though his children’s oral health is good, parents must remain vigilant and encourage young people to look after their teeth.” He added that “I understand if we don’t force them to do it, it gonna cost me a lot of money for bracing and all the things that you incur when you don't take care of your health." The parents further stated that problems such as cavities and infection of the gums affect the health and wellbeing of their children.

Theme 2: Barriers to Dental Care

The second primary theme that emerged during the analysis process was the barriers associated with dental care among the African American families. This particular theme emerged from the responses provided to IQ9 in the protocol, “What are the main factors that affect access to oral health care?” All the ten participants talked about the barriers to oral health and demonstrated how they affect the well-being of their children.

While responding to the question, James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley noted that there is a wide range of issues that may hinder them from accessing high-quality dental care and ensuring that their children and families are healthy. Jennifer stated that poor oral health “Is due to not brushing your teeth not caring for your teeth.” In addition, she stated that the lack of insurance could be a hindrance to oral health. Michael, on the other hand, stated that it is not always possible for one to get access to an experienced and affordable dentist. When asked about where to get a dentist in Durham North Carolina, Michael stated that “I think, am still looking for one here in Durham North Carolina because all then that I just drive home to my area in around the Charlotte area because that’s where I grew so I have known the dentists that I am going to but as far am right here I have not found one yet.” The ten

respondents noted that some African American families continue to face challenges when looking for quality dental care services.

Theme 3: Work-Related Barriers

The significance of work-related barriers when it comes to oral health among African American families emerged when analysis responses to the IQ9 in the interview protocol "What are the main factors that affect access to oral health care?" Out of the ten respondents, Michael, David, and Lisa stated that work engagements can influence appointments and access to high-quality dental services. These three individuals reported that work arrangements and types of employment influence the procedures that people must follow to get permission from the employer and travel from one place to the other in search of services. Michael remarked that "Work, time, just being able to getting the time off to meet their schedules and so that is the biggest barrier. And other barrier I would say is having the transportation to be able to get into the dental and so location of the dentist will be important to me so I don't have to work so hard to try, and you know, drive there whatever, catch the bus."

David, in contrast, remarked that "I have transportation to do so, and maybe just school or work that might be the only reason why." To him, work and school issues were the primary factors that could make it difficult to access high-quality dental care. Lisa also raised issues related to the work barriers that affect access to oral health services. She added that "If you work a job where it's hourly, you might not be able to miss work versus somebody who gets paid per month, you know, you can schedule everybody going to the dentist the whole day but if you cannot afford to miss work, and you are working second or third shift, you know you might not be able to miss, you know, those hours to actually take him to the dentist plus taking him to the dentist you gonna get a bill on top of that." However, Lisa added that "I can arrange something

with my grandmother, or try to arrange to get a day off and it does have some dental offices where they do offer appointments on Saturdays." Thus, work is an important factor that can influence the dental health of African American children.

Theme 4: Distance Barriers

The issue of distance was also cited to be a major hindrance to accessing quality oral health services. James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley indicated that patients and children have to move or travel from their homes to a facility to access services. Thus, the distance to be covered will affect the ability of parents to take their children to see dentists. These concerns emerged in the responses provided to IQ14 in the interview protocol which was, "How does distance affect access to dental care programs?" The all the ten participants showed the desire to take their children for dental visits from time to time. However, the time and money needed for transportation was a major hindrance. Nancy stated that "Transportation is a big issue, and if they accept Medicaid and if they are able to work within the school." Nancy went on to state that "Sometimes the timing, you have to pull your kids out of school or lie to take them to the dentist and sometimes just getting them to the appointment is a challenge. Especially if you are a single mum or working and the appointments are at 1 o'clock or 2, and they close at five, and Monday to Friday and most Fridays they close at half a day, so just the time and money to get them there."

Mark also noted that "Well there is dentist all over. There is right across the street, there is one downtown. Dentists are all over like I said it depends on how much you are willing to spend or how far you are willing to travel." This shows that even when the services are available, accessing them may be a challenge due to factors such as time and money. It is, however, worth stating that some of the respondents believed that a lot of improvements have been made towards

the setting up of an excellent and affordable transportation system. Nancy, for example, said "Okay, the infrastructure. They are trying to get more public transportation they are having referendums and hearings on trying to improve public transportation, make it affordable. The biggest thing is the affordable health care act and Medicaid so that people and doctors could take the covers available for low income."

Theme 5: Poor Past Experiences of the Children and Lack of Expertise

The issue of past experience and the lack of expertise among practitioners emerged in the responses provided by the participants to IQ9 in the interview protocol, "What are the main factors that affect access to oral health care?", James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley talked about the barriers that affect oral health and wellbeing of their children. Mark, for instance, said that "If my child doesn't feel comfortable, I am not gonna take him. If they don't really if they don't really treat a lot of kids, I wouldn't take him.it has to be a good one though. But yeah that will keep me from taking my son to." This response indicates that some parents are worried about the kind of experience that children get when taken to dental care facilities. David remarked that "It seems like, I don't really know, I know it's different like I said its different people working and different employees and maybe it's just a lack of experience." In this case, the respondent alludes to the fact that the lack of experience may affect access to dental services. Furthermore, it will determine the nature and quality of services that children get during the dental visits.

Theme 6: Lack of Money and Dental Insurance

The sixth theme in this study emerged from the responses given to IQ6 in the interview protocol, "How does the availability of dental health services and insurance affect the incidence of dental caries in children?", James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa,

Sandra, and Shirley identified the lack of money and dental insurance as major hinderance to oral care. David stated that "I think is just money and people just lack of not even want to take care of their, you know mentally, they don't wanna take care of their oral hygiene and so forth." When probed further regarding the issue, David indicated that money and insurance were instrumental to the access of high quality and regular dental care. Lisa stated that many people would like to take care of their dental needs but are not in a position to because of money. Nancy said that "money and transportation were big issues, and if they accept Medicaid and if they are able to work within the school." Sandra also made reference to the theme by stating that "I think we have a lot of dentists in the area, and also UNC-Chapel Hill has a dental school and they provide some services as well, so I think it's very accessible but when it comes to having health insurance and paying out of pocket for something's especially when it comes to things that are more complicated like root canals and stuff like that, that's actually where the issue comes." In this regard, it is evident that access to proper dental care depends on the socio-economic status of the families in question.

Theme 7: Greatest Perceived Barrier

All the ten participants responded to IQ15 in the interview protocol, "Can you afford oral care services? How do socio-economic conditions affect access to dental care programs?" Furthermore, they identified the barriers that could affect access to dental care services. The respondents identified different factors as the most significant barriers that affect the use of oral health services. James said that "I think just having the money and the resources to go, transportation issues, it's not covered especially for adults under the Medicare. It is not really covered, and it's not easy to find a doctor that will take Medicaid for oral health, but mostly it's economical." Nancy, in contrast, noted that "there are a lot of dentists, but a lot of them don't

take Medicaid or payment plan, I can't afford to go to them. The University of Chapel Hill has a school of dentistry, but you have to be on a waiting list or a lottery." Sandra gave a detailed response to the primary barriers to proper oral health care. The interviewee said, "Ah, so boundaries or impediments that might prevent you from taking your child to a dentist include having the money to do so, whether they have adequate dental insurance. Second is, you know, some people come down here to North Carolina from like an urban city like New York, and they don't have quick access to transportation so they don't have the means to get a person to the dentist." Sandra went on to state that "And then, too maybe they don't have a referral or you know, maybe they have had a bad experience in a certain dental office and just don't, yeah, they just afraid to go, you know, fear concern, yeah." These are factors that need to be taken into consideration when working towards better oral health among African American families.

Research Question 2

The second research question was: What do African American parents consider adequate oral health care for their children? This research question focused on determining the knowledge and view of African American families regarding the dental health of their children. Three primary themes discussed below were identified during the analysis process.

Theme 8: Views of Parents Regarding Oral Health

At the start of the interview, the respondents were asked questions regarding their understanding of oral care. IQ1 in the protocol was "In your opinion, what is oral health?" IQ2, on the other hand, was "What do you think about how cultural beliefs and norms affect accessibility to dental care?" When it comes to cultural factors, there were no specific norms and beliefs that were noted from the participants. However, James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley provided their personal understanding of the issue of oral

health. James said, “In my opinion, I would say it is a healthy mouth without cavities or without missing teeth. No any kind of negative teeth work, so again missing teeth, no issues with teeth coming out. Just a healthy, clean 2-3 time a day brushed mouth.” Nancy, on the other hand, noted that “Oral health is the hygiene and cleaning of your gums teeth and mouth areas.” Other respondents stated that oral care related to the manner in which people ensure proper dental hygiene. Sandra, for instance, described oral health as the process of “Making sure that you take care of your teeth, your tongue and your mouth.” Shirley contributed to the topic by saying that “oral health means just taking care of the oral cavity teeth gums everything included in the mouth and just ensuring that it just assessing disease and absence and presence of disease.”

Theme 9: Practices of Oral Care Followed by the African American Children

All the ten participants answered IQ3 in the interview protocol “What is your opinion about tooth brushing? How is it good or bad?” James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley noted that their children maintained proper dental health through the use of toothbrushes, dental floss, as well as other types of mouthwashes. James said that “My personal belief you have the basic, you have the brushing, the flossing, and the mouthwash.” Jennifer, in contrast, responded by saying that “You are supposed to take at least 3 to 4 minutes to brush your teeth. Make sure you go over it about two times.” Similar sentiments were raised by Robert who posited that “I do really think it’s good to brush often, 2-3 times aday and then tooth brushing is really essential because you know if you don’t that good you could build up plaque and cavity and everything.” Robert went on to state that he encourages his nine-year-old son to brush regularly.

Theme 10: Attitude

The final theme in the study was on the attitude of the respondents towards oral health. The ten respondents provided answers to IQ10 in the interview protocol, “What can be the consequences of poor access to oral care or poor oral care practices?” In addition, they gave clear answers to IQ11“What do you think is the worst thing that may happen if oral care is not practiced?” Nancy noted that oral health is critical to the wellbeing of their children. Nancy added that “I don't buy juice and I don't buy soda. I don't drink soda, we try to eat healthily, but they are teenagers so they can buy things on their own or drink when I am not around all they want, but I try to teach them about the harm of high sugar content in foods and to always brush, rinse and floss.” Jennifer asserts that “the consequences if you don’t go to the dentist, is you can get bad teeth, bad breath, cavities, your teeth could start falling out at a young age.” David also said that “I believe that African-Americans should always have regular checkups and, regular brushing of teeth with a coagulant to keep our mouths healthy and clean.” The responses show that African American families believe that the poor oral care practices can adversely affect the health and well-being of their children.

Summary

This chapter of the dissertation presented the outcome of the thematic analysis that was done in the study following an interview with African American parents living in North Carolina. The analysis shows that oral health is a serious concern affecting such families. The themes identified in the data analysis process provide vital information that can be used to understand dental health issues in the study population. The next section of the paper discusses the primary themes identified in the previous chapter.

Chapter 5: Discussion, Conclusion, and Recommendations

Introduction

The purpose of this qualitative research was to explore and understand the perceptions of parents about barriers to children's oral health. The process of perception is of the inferential character and constructive, generating an internal representation of what happens in the exterior to the hypothesis. The African American parents in this study were well aware of the grave situation of the oral health in their children. They have experienced oral health problem to some extent when they were children. The majority of them are well aware of oral parts, oral hygiene, and methods of cleaning. The World Health Organization (WHO, n.d) defines health as a state of complete physical, mental and social well-being, taking the absence of diseases and conditions. The study population stated that they visited dentists primarily because of pain. Furthermore, majority of participants claimed that they could have better oral health.

Interpretation of the Findings

James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley believed that oral hygiene relates to the general health of the body, as suggested by a number of researchers. Greenwood and Holt (2014) suggest that the challenging and ever changing socio-economic conditions of majority of immigrants and indigenous populations impacts their health problems. The socio-economic conditions have direct impact on the general health of disadvantaged groups, which Marmot and Bell (2012) add have limited and fewer opportunities to access oral health. The general health of the body referred to by the participants is directly related to the quality of life based on living conditions, lifestyle, diet patterns and affordability of healthcare as described by Arrow and Klobas (2015). The authors noted that the quality of lifeof

low-income families has a direct effect on the oral health of their children. The outcome of this study confirms the conclusion made by Klobas (2015) with regards to the oral health of children.

Finlayson et al. (2013) provide a summary of the state of oral health in the United States, which is marred with disparities based on socio-economic status. The survey shows that oral health problems were more common among disadvantaged communities and racial minorities who reported a high level of poor or fair oral health compared to the rest of the population. Those from good neighborhoods had a good mastery of good oral health therefore reporting higher and better oral health. This study supports the current results by demonstrating the wide range of factors and issues such as distance, insurance, employment, and money that relate to oral health among African Americans.

A more recent study by Sharma (2016) further supported the argument that a wide range of factors influence dental health and access to dental services. One such factor is the willingness of the individual to use them. During this study, James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley provided responses that demonstrated their understanding of oral health and its implications. In addition, they noted that the utilization of the services can be influenced by different personal factors and past experiences. It is these issues that will affect the willingness of a person to visit dental care facilities and use the available services. The nature of dental caries varies and, largely, it is a consequence of the interaction of the different risk factors involved in its development. African Americans understand that their children and future generations are in constant threat in terms of oral diseases as observed by Greenwood and Holt (2014), who argue that immigrants and disadvantaged groups are under constant oral health threat due to their ever-changing socio-economic condition.

The results of the current study show that most of the participants believed that dental caries were a common health problem among children. These results are consistent with studies that have examined the issue of dental carries among young children. Dental caries is the breakdown of the tissues that make up the tooth with the structural loss of substance (Atyeo, 2016). It is produced by the action of lactic acid and disposal of specific microorganisms, which manages to accede to the tooth by the presence of carbohydrates and dissolve carbon ions of dental tissues. The result is a decomposition that begins with the decalcification of the place and continues with the formation of cavities, leading to tooth loss if the condition goes untreated. Oral health directly relates to the overall health and quality of life of people as stated by Arrow and Klobas (2015). Therefore, the presence of any oral disease can adversely affect the overall health of the subject. First, it can exert negative influence on the food and nutrition of the subject. This is due to poor chewing or ingestion, resulting from strong pain (Bennadi & Rebby, 2013). Previous studies add that dental carries can also affect the appearance of the subject, self-esteem, and social relationships (Bennadi and Rebby, 2013). These are issues that were noted as the participants provided responses about the meaning of oral health, the need to seek services, and the effects of the condition on the wellbeing their children.

Caries is the most common chronic disease, especially those who are in marginalized social circumstances. Self-care practices and dental visits vary from one family to the other as indicated by the responses that were provided regarding access to care. For some families who took part in the study, it involves cleaning the teeth using products such as toothpastes and Listerine. For others, proper dental care involves healthy eating and avoiding sugary foods. Jennifer, Shirley, Mike, Mark, and Nancy noted that oral care entail making sure that you take care of your teeth, your tongue and your mouth. James, Michael, Lisa, David, and Sandra

alluded that oral health entails taking care of the oral cavity, teeth, gums, and the mouth. These statements are supported by the findings from previous studies that have shown that oral care practice can vary from one individual or family to the other (Bennadi and Rebby, 2013). The differences may be attributable to the understanding of the what dental care is all about and the exposure to risk factors such as smoking, alcoholism, and a deficient diet. The present study, however, showed that all the respondents were concerned about dental care and strived to ensure that their children access appropriate services. The increase in technology and sophistication, in both diagnosis and treatment of diseases, makes possible day-to-day medical and dental care, but this does not always lead to health improvements largely due to persistent lack of awareness regarding oral health (Atyeo, 2016). Atyeo (2016) showed lack of awareness is the biggest impediment to accessing oral treatment and cites limited community-based programs that would support to create awareness on oral health in African American communities. This contrasts with the present study where the primary barriers include insurance, cost, and transportation.

African American parents who took part in the study believed that they are susceptible to oral health diseases due to many factors. Socio-economic context and social position exert a powerful influence on the health of societies. An earlier study by Green and Murphy (2014) reported African American children were under threat of dental caries for a number of reasons. In particular, the researchers identified factors such as education, housing, the area of residence, and deprivation as critical determinant of oral health among the population. In other cases, the lack of public insurance and its high cost in the private sector made it difficult for families, especially those who are disadvantaged, to access the professional care of the dental health of their children. In this regard, the current study agree with previous research works that have established a correlation between low-income earners and poor oral health due to limited access

to the expensive curative and preventive oral healthcare. Biordi et al. (2015) conducted a study on 4360 children from low income families and determined that access to oral care by the sampled population largely depended on their ability to access finance. Cost was a major factor that influenced their ability to get preventive oral health care services. These findings were supported by another study by Hoffmeister et al. (2016) who investigated the main factors that influenced oral healthcare practices in Chile. The study concluded that the distribution of oral health problems in societies was dependent on the socio-economic status of the population, which determined the ability of children to access quality preventive oral health care. Mesch, Mano, and Tsamir (2012), also established that minorities often do not access health insurance, because they are not knowledgeable about existing insurance policies. The results agree with the present study that indicated that insurance and socio-economic factors like employment affect access to dental care.

The other critical factor that influenced oral care and health among African American parents is awareness of what dental care is all about and the associated problems. This theme was reflected in the answers of respondents when establishing the process of accessing dental help and the availability of the services. The study showed that James, Nancy, Mark, Jennifer, Michael, Robert, David, Lisa, Sandra, and Shirley were knowledgeable about the implications of dental health problems and the need to access high quality service. This situation also manifests when considering treatment preferences by the study population to relieve tooth pain, as they selected the removal over the option of dental restorations or worse yet, wait until the pain subsides. Respondents reported that their knowledge on oral cavity and dental care is largely from school and the media. However, these key sources of information for the participants are not specialists on the subject of oral health. Pilling and Estes (2016) noted that the lack of

awareness among communities was a critical factor that contributes to poor oral health outcomes and a hinderance to the access to proper oral health care. It should be noted that previous studies have identified social contaminants of the oral health and issues that affect access to high quality dental services. They include poor nutrition, poor hygiene, overweight/obesity and a history of tobacco and alcohol (Collins et al. 2016). In the present study, however, the respondents were more worried about the economic issues that may influence dental health and access to services such as cost and insurance.

The respondents in the study had some knowledge of the oral cavity. Previous studies show that knowledge and awareness on dental care could be transmitted from various means like school, church as described by the participants (Genco & Borgnakke, 2013). In addition, the information could be passed from one generation to another that is often entrenched in cultures through institutions like family as observed by Genco and Borgnakke (2013). According to Genco and Borgnakke (2013), this knowledge that is often entrenched in traditions can either be beneficial or detrimental to the group. In cases such as those observed in this study where the information is incomplete and, in many cases, wrong is detrimental to the African American community. The respondents possessed general knowledge of the importance of brushing. In this study, however, the actual source of information regarding dental health was not examined. However, the results showed that the participants understood the concept of dental health and factors that affect access to oral care.

Largely, the toothbrush and toothpaste were the only instruments needed to keep teeth clean and healthy. In addition, James, Mike, Mark, Nancy, Michael, David, and Sandra stated that products such a toothpaste and Listerine could be used to prevent dental health problems. Even so, oral caries and periodontal disease, such as dental problems are more common in the

population. In general, most respondents believed that the state of oral health in their lives is bad mainly due to poor oral health education. This finding is supported by Ismail et al. (2013) who observed that the frequency and rate of oral hygiene is quite low among children largely due to lack of knowledge on the benefits of preventive practices like using dental floss. As a result, the respondents sought dental care or primarily extractions only when there is pain or a problem with teeth. In addition, there was a mistaken belief that teeth were not an important part of the body, so there was little interest and care provided to them. This was exacerbated by limited and high cost of dental care, and the rare approach by the government in the area of oral health. All these contributed to inadequacy in addressing oral health care.

Perceived barriers or determinants of access to and use of oral health services is a prerequisite for addressing inequities in the access to the health care system. During this study, the respondents noted that the access to dental care was influenced by barriers such as insurance and transportation. Green and Murphy (2014) argued that accurate information would be critical to overcome this contradiction in relation to the health belief model. However, they understood the significance of overcoming these barriers to safeguard the wellbeing of their children.

Dental services have been shown to be effective in alleviating the suffering and facilitate the healing of diseases to improve the quality of life of the people, which is especially important for the dental services. However, there is evidence that health care services are used differently depending on the different social classes; for lower socioeconomic level, there is less access to the same as investigated by Biordi et al. (2015) in a study that showed cost as one of the factors that determine access to preventive oral health care services. Hoffmeister et al. (2016) established that oral health problems in the society are directly linked to the socio-economic status with those with low socioeconomic status having restricts access to quality preventive oral

healthcare (Da Fonseca, 2012). In this study, it was established that factors such as money, dental insurance and distance barriers could influence oral health and wellbeing of children. These are findings that are consistent with the responses provided during the interviews. All the ten respondents stated that proper dental care can only be achieved when one overcomes different barriers. Furthermore, some of them stated that they strive to deal with the barriers by making proper plans on how to access the services. The process can entail making arrangements on how to balance between attending dental care facilities and going to work, having insurance covers, and teaching children healthy eating habits.

The ten respondents in this study raised concerns about the cost of treating caries in schoolchildren and how it affected overall health. This finding is consistent with one by Pilling and Estes (2016) who studied perceived barriers to oral health care among migrant women in North Ohio who cited high cost as a persistent barrier to oral health care. The treatment of oral diseases is extremely expensive in most industrialized countries, which creates an unfavorable balance in the equity in access, and it is inaccessible to the so-called low and middle-income class African Americans, where many injuries are left untreated or treatment is for serious life-threatening conditions. Poor people are blamed for their children's oral health problems, which become visible and can cause a loss of generational status. The apparent contradiction among the respondents did not mean that the levels of family income did not have a positive influence on the state of health. However, it proved that there are other social factors such as education, the conduct of the persons, the management of public spending on health, and other factors that jointly contribute to the differences in oral health. This conclusion is supported by the findings of a study by Liu, Zhang, Wu, and Cheng (2015) who investigated 1188 adults to assess the key

features of oral care seeking behaviors. The study singled out that education was one of the factors that influenced the decision of the adults whether to seek oral health care or not.

Previous studies concur with the finding of this research that financial factors like insurance and cost of care can affect oral health. This is a notion that emerged in the present study where all the respondents noted that financial factors can significantly affect access to proper oral care (Collins et al., 2016; Liu et al., 2015). Others went on to state that limited financial resources make it difficult for families to access proper care. Others further stated that although dental care services may always be available, access to them will depend on the ability to incur the cost. The main cause of structural barriers is how the health system is financed, although there are other underlying causes determined by the organizational configuration and the type, number, or location of providers of health services (Judah, Gardner & Aunge, 2013; Collins et al., 2016; Liu et al., 2015). Financial barriers have their origins in the limitations of the population to assume the costs of the health care services. The personal barriers are motivated by the social behavior of individuals in relation to health, which may be a result of the perceptions of the individual on his body, his state of health, various alternatives to solve health problems (traditional or alternative medicine), and psychological or psychosocial domains. This shows why the ten respondents had diverse views and perceptions regarding oral health and the issues that affect it.

The attitude or perception of parents in this study were further influenced by the past experiences of their children. Judah, Gardner and Aunge (2013) concur that the first contact and experience a child has with a dentist is critical because the health professional's attitude and behavior will determine the child's behavior towards oral health for the rest of his or her life. Stigma brings along gender inequalities, racial discrimination (i.e., a synergy of traits

stigmatizing) that contribute to social parameters of social discrimination. Many affected people are victims of social discrimination, which guides the downward spiral that favors the damages to the general health and oral health. In short, while genetic and biological factors play a role in the differential vulnerability of various populations, the influence of culture and the socio-economic and environmental status may become more significant. Negative dental experiences can generate fear and anxiety as demonstrated by Judah, Gardner and Aunge (2013), which can affect attitudes toward oral health and visiting the dentist, creating a vicious cycle that exacerbates the health problems. The costs of health services are considerably high, particularly because the oral health services are limited or do not exist within the services offered by the health systems. The social gradient in oral health persists over time and reflects the strong relationship between oral health and socio-economic factors. The low socio-economic and educational level and limited availability of public services oral health care for thedisadvantaged population. This explains why cost, insurance and transportation were identified to be among the primary barriers to oral hygiene and access to dental services.

There are three determinants within the characteristics of the population: willingness, capacity, and necessity. The first relates to demographic factors, such as age, sex, race, religion and the values assigned to the health and the disease that “predispose” in individuals using the services. The second includes the available resources and access to the services, including income level, the type of insurance, and coverage. The third alludes to the health conditions that determine the need for access to services, which may be established by the perception of the individual or induced by health professionals. Among the factors associated with the use of dental services were familial needs, economy, because people with socio-economic disadvantages are limited in their access to health services (Hoffmeister et al., 2016). Parental

level of education is also important, since a higher level of education associates with an increased use, this is evident in their knowledge about access to health insurance according to Mesch, Mano, and Tsamir (2012). Hoffmeister et al. (2016), and Mesch, Mano, and Tsamir (2012) noted that poor individuals and those with a lower level of education have fewer opportunities to access health services, primarily due to economic barriers. In addition to the financial barriers, there are limitations of administrative, geographical, and cultural context coupled with a lack of dental insurance, which according to Mesch, Mano, and Tsamir (2012) is due to lack of awareness on the existence of insurance dental policies that would otherwise benefit the minority and economically disadvantaged groups. In the present study, however, the respondents were aware of the significance of dental insurance and the manner in which it affected the wellbeing of their children.

Limitations of the Study

The current study had some limitations that may affect the application and generalizability of the results. First, the small sample size that was used in the study may have affected the relationships between the various variables and constructs under investigation. Second, the focus on a wide range of issues related to oral health expanded the scope of the study significantly and made it difficult to carry out in-depth analysis of every major theme. Third, the study relied on self-reported data to achieve its objectives. The approach may have affected the quality of the results as the researcher could not verify all the information independently. Finally, cultural bias arising from the fact that the researcher and respondents belonged to the same community may have affected the quality of the results. While applying and analyzing the findings of the current study, it is important to take all these limitations into consideration.

Recommendations

It is suggested that future scholars continue studies in indigenous populations, applying the qualitative methodology to learn behaviors and beliefs in oral health from the perspective of the social actors such as parents. Also, in the light of our findings and the methodology used, it is recommended that future researchers inquire about the existence of socializing agents in oral health, both in the community and as part of the health system. It is possible to act as agents of education for oral health and help communities understand its significance when it comes to the wellbeing of children. Furthermore, it is imperative to help families to understand the social determinants of oral health so that they can make informed decisions regarding the use of dental services. This could be the trigger to enhance positive social change. Within the same breadth, it is important to educate members of the African-American communities living in Durham the importance of oral health and how they can ensure that their children received the best dental services. The education sessions can be conducted in a group setting at a convenient place such as churches and schools. I intend to have the study published in journals related dental care like the Journal of Dental Health, BMW Oral Health, and Journal of Dentistry & Oral Health (JDOH). This way, the results can be used as the basis of understanding different issues affecting the oral health of African-American communities.

Implications

Oral health is critical to the wellbeing of the society. The current study show that African American children face significant oral challenges that may affect their growth and development. However, parents strive to ensure that their children receive appropriate care so that they can live a better and fulfilling life. The ultimate success of any preventive measure depends on deliberate oral hygiene actions, such as brushing and flossing, as part of a daily hygiene routine, which are

effective in preventing oral diseases such as caries and periodontal disease. The first visit to the dentist should be carried out between the first and third year of age. Such healthy habits like dental visits formed in a person's early age tend to yield positive and lasting impact over time. This visit is usually a positive one, because the child is not subjected to any treatment, which will help start a cordial trustworthy relationship with the dentist professional and, in general, with the care of their teeth. The results of the present study highlight the need for social change and increased preventive effort among family members with the goal of improving oral health and care.

The prevention of oral diseases can be difficult, because of many barriers like limited availability and accessibility of health options and oral health services, especially for low-income people, mobility difficulties and lack of transport. Equal access to health services as well as the focus of improving the health of the population are important. However, its impact on the health status of the population is small in comparison to other determinants of health. Access to a regular source of health care can be a significant predictor for the use of all types of outpatient services, preventive, curative, and emergency preparedness on the part of American adolescents from urban and rural areas. The accessibility of oral care is a determining factor for proper health. The distribution and proportion of the personnel of oral health vary greatly depending on the areas of the population, and African Americans assume that there is low availability of dental caretakers for them at places near their homes or jobs. The human resources for oral healthcare are unevenly distributed, with clear concentrations of personnel in geographical areas that have greater economic and social development, subsisting on large geographical areas with an acute shortage of human resources. The only solution to reverse these serious imbalances is through enhancing training and resources at the local level, together with a global health policythat

integrates to the oral health within the framework of general health. Furthermore, it is imperative to educate the communities about the significance of oral health and ways of overcoming the barriers to proper dental care.

Conclusion

The oral health makes it possible for people live a quality life. However, oral health is still a public health problem throughout the world, as oral diseases remain prevalent in unprotected population groups. Poor oral health can have devastating effects such as loss of teeth and traumas caused by accidents and unintentional injuries that impact especially in the quality of life for all, in the intake of foods and in the growth and development of children. Research on social inequity in access to oral health services is more substantial in developed countries. It is necessary to carry out systematic studies of social gradients in developing countries. Most commonly perceived variables as indicators of socioeconomic status include social class, education, employment, ethnicity, and gender. These factors result in differential exposure and vulnerability to oral health problems with results and different consequences in health care. The exposure to risk factors during childhood by adversities social, cultural and environmental circumstances can have a strong impact on oral health during the whole life.

Service availability does not ensure equality of access to all social groups. Actions aimed at improving health should take into account the social, cultural and economic differences that society itself contains, as the mere offer of a public health service does not guarantee the achievement of the objectives of equity and health improvement. In general, we can establish that the perception of oral health is scarce and incomplete and evidence of the strong need for education on the part of health professionals to the population. Until this action is carried out, dental help of any type (preventive, restorative, or even aesthetics), will have an impact on the

oral health of the nation. Therefore, training the population in the areas of oral health is the link that will mark the change, as the population does not reflect a solid basis on these issues which contribute to the implementation of the concepts and thus an improved quality of life, and subsequently of the health of the oral cavity. It is necessary to develop a system of dental care for the entire population of African American children, oriented to health, and which was accessible and acceptable to each family. The goal of the system should be to help African American children grow up healthy, preventing new generations of citizens from becoming chronic dental patients in the future.

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Appendices

Appendix A: Consent Form

You are invited to take part in the research study regarding the perceptions of barriers to oral care among African American families in Durham, North Carolina. The goal of this study is to explore and understand the perceptions of parents about barriers to children's oral health. I am inviting parents of children aged between 6 and 14 years from African American families in Durham, North Carolina to participate in an interview. This "Informed Consent" form will help you to understand the study before deciding whether to take part. The present study will be done by Samuel Motto, a doctoral student at Walden University.

Background Information:

The study aims to investigate the perceptions of barriers to oral care among African American families in Durham, North Carolina by exploring their experience.

Procedure:

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

Voluntarily sign an Informed Consent agreement after a detailed explanation of the study purpose and social implication session.

Commit a one-time 30 minutes one-on-one interview. Additional five minutes may be added to address any issue that may arise in the course of the interview. At the end of the interview, 10 minutes debriefing session will be provided to allow each participant to reflect on the interview process and questions that may not have been covered adequately during the interview.

Talk about your experience of dental caries and whether you are currently seeing a health professional for dental disease.

You may choose not to answer any question considered uncomfortable or to opt out of the entire interview at any time. The interview will be conducted either in the participant's home or mine where confidentiality and privacy can be assured.

Voluntary Nature of the Study:

This study is voluntary. Everyone involved in this study will respect your decision of whether or not you choose to be in the study. If you resolve to take part in this study now, you still have a right to change your mind later or discontinue your involvement at any time.

Risks and Benefits of being in the Study:

There are no risks of taking part in this study except the recalling of unpleasant experience regarding dental caries if any.

The study may be helpful to document the experience of the participants and explain the factors responsible for dental caries with a particular focus on Durham, North Carolina.

Payment:

There will be a $10 reward at the end of the interview, regardless of whether you choose to finish it or not.

Privacy:

I will not use any information for personal benefits outside this research. In addition, I will securely keep the data collected from the interview and destroy it after five years. Finally, I will not use or reproduce this data for any other project without your consent.

Contacts and Questions:

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Statement of Consent:

I have read the above information, and I feel I understand the study well enough to decide my involvement. By writing the assigned confidential code below, I understand that I agree to the terms described above.

Printed Name of Participant _____

Date of consent _____

Participant's Sex (Male or female) _____

Researcher's Signature _____

Appendix B: Interview Protocol

Q1:	In your opinion, what the oral health is?
Q2:	What beliefs have you as African American parent regarding dental caries and care in Durham, North Carolina?
Q3:	What is your opinion about tooth brushing? How is it good or bad?
Q4:	What do you think how cultural beliefs and norms affect accessibility to dental care?
Q5:	Where can you find a dentist in your area?
Q6:	How does availability of dental health services and insurance affect the incidence of dental caries in children?
Q7:	How you rate the oral health of your children?
Q8:	Has the availability of infrastructure significantly improved over the years? If so, how? If not, why not?
Q9:	What are the main factors that affect access to health care?
Q10:	What can be the consequences of poor access to oral care or poor oral care practices?
Q11:	What do you think is the worst thing that may happen if oral care is not practiced?
Q12:	What do you think is the most critical age when chances of suffering from oral disease are much higher?
Q13:	How does language influence access to dental care awareness programs?
Q14:	How does distance affect access to dental care programs?
Q15:	Can you afford oral care services? How do socio-economic conditions affect access to dental care programs?
Q16:	Have your family's dental care practices changed over the years?

Q17:	Do you agree that changing the health care behavior may improve overall health? If yes, then how?

Appendix C: Flyer to invite participants to take part in the study

Name:

Phone Number:

My African American Brothers and Sisters

Call for Participation in a Ph.D. Study

I seek African American parents living in Durban, North Carolina to participate in an one-on-one interview for a study "Perception of Barriers to Oral Care Among African American Families in Durban, North Carolina" conducted by _____, a Ph. D candidate at the Walden University. The parents should have children aged between 6-14 years to be eligible to take part in the interview.

The purpose of the interview is to document the perceptions of African American parents regarding the oral health status of their children.

Time Required: 30 minutes

Benefit: 10 $ per participant