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# "More than Just a Tooth Problem": A Theory-Based Qualitative Study Exploring Dental Perceptions at a FQHC

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An abstract of
A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
in partial fulfillment of the requirements for the degree of
Master of Public Health
in Behavioral Science and Health Education
2019

#### **Abstract**

"More than Just a Tooth Problem": A Theory-Based Qualitative Study Exploring Dental Perceptions of Low-Income Women at a FQHC

# By Yasmin S. Kashfipour

**Introduction:** Oral health remains a critical problem in public health, especially in low income or impoverished populations. Research has proven that there is a direct link between oral health and one's systemic health and well-being. Health seeking behavior and the anxiety related to visiting the dentist remains an enigmatic topic in health care. In addition, the rising cost of health care adds another dynamic that affects how people seek oral health care. Research shows that health seeking behavior has direct effect on health outcomes. Although there are community health centers known as FQHC's (federally qualified health care centers) that were created to help address the financial barrier to health care, there are little resources available that address the factors that contribute to oral health-seeking behavior. The HEALing Community Center was established in 2015 to help address some of these issues and aid people seeking comprehensive care, in overcoming some of the psychosocial and financial barriers that some may face when seeking dental treatment.

**Objective:** This study explores the dental health perceptions of low-income women of the HEALing Community Center through the application of Theory of Planned Behavior. Furthermore, this study aims to understand the motivations along with socio-contextual factors that determine health seeking behavior of receiving dental care, specifically at HEALing Community Center. Lastly, the study examines the dental habits of women and how this can lead to overall better health of their families.

**Methods:** Qualitative methods were used to collect primary data through semi-structured, one-on-one interviews with women who seek oral health care at the HEALing Community Center. Interview questions addressed the constructs of Theory of Planned Behavior. Thematic analysis was carried out utilizing MAXQDA software in which codes would be used to create a comprehensive codebook for analysis purposes.

**Results:** Five themes emerged regarding determinants that influence women to seek care at the HEALing Community Center, women's perceptions of dental care, and the sociocontextual factors that influence individuals to seek care at HEALing Community Center, including: Dental Anxiety, Friends and Family Influence, Aesthetics, Quality of Services, and Lessons Learned

**Conclusions:** Based on these findings, it is essential to understand that friends and family influence, quality of services, aesthetics, and lessons learned are factors that play a role in dental health seeking behavior amongst low-income women. This suggests that it may be best to provide more effective health promotion methods, locate FQHCs in disproportionately affected areas of Atlanta, and provide educational services and better access to care.

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#### Acknowledgements

I would like to take this opportunity to thank the instrumental collaborators and individuals that made this thesis possible. First, I would like to thank the HEALing Community Center, which opened its doors to me in order to collect and utilize data for this research study. You are the true definition of community healers and have made a difference in the Atlanta Oral Health Community. Additionally, I would like to thank the Emory Urban Health Initiative for their investment in this research to help improve programs and services of the HEALing Community Center.

Particularly, I would like to warmly thank my thesis chair, Dr. Dawn Comeau, who has contributed her immense knowledge, guidance, and expertise of qualitative research in relation to this study. Your door was always open to me and you have made me into the researcher I am today. I cannot thank you enough!

In addition to my advisor, I would like to take the time to thank my committee members: Dr. Charles Moore, for sharing his knowledge and wisdom as well as having the vision to open the HEALing Community Center, not only as a healthcare facility, but a home for this community. Dr. Jennifer McCants, for using her passion of dentistry to practice in this community and for your countless guidance through understanding the practice and its patients, and Ilyssa Tamler, for all the guidance, encouragement, and expertise that you have contributed to this project. I wholeheartedly thank you all for your investment in me as a student researcher. I feel extremely lucky to have had the opportunity to work with esteemed professionals. You all inspire me.

I would also like to sincerely thank my friends and colleagues, Lucy Whitehead and Jacob Horvath, for your knowledge, laughs, and patience alongside the coding process.

Lastly, I would like to express my gratitude to my family, friends, and my partner, Tarek, for their constant support and continuous encouragement through this process. I could not have gotten this far without you. This one is for you.

# -Yasmin S. Kashfipour, MPH

# **Table of Contents**

| Chapter 1: Introduction                               | 8  |
|---|----|
| Problem Definition                                    |    |
| Scope of the Problem                                  |    |
| Theory of Planned Behavior as a Theoretical Framework | 9  |
| Statement of Problem                                  |    |
| Research Aim  |    |
| Chapter 2: Review of the Literature                   | 12 |
| The Evolution of Oral Health                          |    |
| Diseases of Oral Cavity                               | 13 |
| Dental Health Behavior.                               |    |
| US Healthcare System and Dental Care                  | 16 |
| Status of Oral Health in the United States            | 18 |
| State of Georgia's Oral Health                        | 19 |
| Public Health Significance of FQHCs                   | 20 |
| Building Bright Smiles through Oral Health Education  | 21 |
| Public Health Significance                            |    |
| Chapter 3: Research Methods                           | 24 |
| Study Design  | 24 |
| Sampling & Recruitment                                | 24 |
| Data Collection & Measures                            | 25 |
| Confidentiality                                       | 26 |
| Potential Risks/Discomforts to Study Participants     | 26 |
| Benefits  | 26 |
| Compensation  |    |
| Data Analysis: Data Management and Monitoring         | 27 |
| Analysis/Statistical Plans                            |    |
| Student Contribution                                  |    |
| Chapter 4: Thesis Manuscript                          |    |
| Chapter 5: Public Health Implications                 |    |
| Recommendations                                       |    |
| Limitations   |    |
| References  |    |
| Appendices  |    |
| Appendix A. Eligibility Survey                        |    |
| Appendix B. Interview Guide                           |    |
| Appendix C. Codebook.                                 | 63 |

#### I. Introduction

# Problem Definition

Oral health is an essential component of a healthy lifestyle; good oral health is essential to the way we take in nutrients and energy in our bodies through the food we consume. More importantly, oral health is critically associated with other health outcomes, which is why it is imperative to seek the appropriate oral health care and take preventative measures to protect against diseases of the oral cavity, craniofacial diseases, and even cancer. According to the American Dental Association (ADA), oral health is defined as functional, aesthetic, physiologic and psychosocial well-being and is essential to an individual's general health and quality of life (ADA, n.d.). In other words, oral health has the ability to affect all aspects of the body and overall health. In order to understand the effect of the oral cavity on the rest of the body, it is important to understand what constitutes the oral cavity. The Georgia Department of Public Health defines the oral cavity as the areas of the mouth and throat, which include the teeth, gums, tongue, salivary glands, upper and lower jaws, hard and soft palates, linings of the mouth and throat, as well as any chewing muscles (Kabore et. al., 2014). Oral health affects all individuals at some point in their lives. Therefore, it is crucial to spread awareness, prevention practices, and education in order to combat oral health disparities in future generations.

# Scope of the Problem

According to the World Federation of Public Health Associations, oral health has been compartmentalized into healthcare and separated from branches of public health (WFPHA, n.d.). The neglect of oral health has become a major public health issue that remains to be addressed in the United States, as well as globally (Griffin et. al.,2012; Anderson et. al., 2013). One's oral health can be negatively affected by trauma, poor

nutrition, alcohol and tobacco usage, as well as poor oral health practices (Griffin et. al., 2012). Neglect of one's oral health along with these factors are an equation for negative health outcomes. Poor oral health practices can lead to tooth decay and even tooth loss, which can cause daily pain and hinder one's quality of life (Griffin et. al., 2012). Furthermore, underlying health conditions can lead to severe dental prognosis such as dental caries, periodontal disease, and oral cancer (Li et. al., 2000; Nazir, 2017). For example, the National Institute of Dental and Craniofacial Research (NIDCR) reports oral cancer rates have increased by approximately 15% since 1970, with 49,700 individuals being diagnosed with oral cancer each year (U.S. Department of Health and Human Services, 2000). For these reasons, neglecting one's oral health can have severe consequences along with a multitude of negative health effects. This gap in research indicates that the field of public health needs to focus on oral health using the Theory of Planned Behavior (TPB). Due to a lack of research with respect to behavioral motivators of dental health care seeking, this study will utilize a theoretical mode in order to address the perceptions, motivators, and socio-contextual factors for dental health care seeking at a FQHC.

# Theory of Planned Behavior as a Theoretical Framework

Theoretical Frameworks are an essential component of research. The Theory of Planned Behavior (TPB) is often used to frame behavioral research and common lifestyle behaviors and can often be accompanied with the Theory of Reasoned Action (TRA). TPB continues to be the most widely used framework when it comes to application to health seeking behaviors (Godin et. al., 1996; Azjen, 2001; Patrick et. al., 2006; Amin et. al., 2014; Vernon & Howard, 2015). The theory is centered around three main constructs:

attitude towards a specific behavior, subjective norms (family, friends, pressure, etc.) that allow for one to behave in a specific manner, and lastly, one's perceived behavioral control, which allows for one to have control over that behavior. These constructs lead to one's intention to behave in a particular manner, which has been recognized to be the most crucial component aligned with behavior (Glanz et. al., 1997). This theoretical framework can help to explain the attitudes, subjective norms, and perceived behavioral control that lead to the intention to behave in a way that either promotes good or poor oral health. This framework has also been widely used to explain behaviors such as dental attendance and factors that influence one to use public dental services (Luzzi et. al., 2008; Åstrøm et. al., 2018). It has rarely been utilized to explain dental perceptions relating to FQHCs.

# Statement of Problem

It has been reported that the "mouth is the window to general health" (Alpert, n.d.). The oral cavity can display signs of illness and weakened immune system that occurs throughout the rest of the body. Pregnancy complications, coronary heart disease, diabetes, kidney disease, stroke, and respiratory diseases have been linked with poor oral health (U.S. Department of Health and Human Services, 2000; Kane, n.d.). Additionally, certain medications have also been reported to affect the oral cavity (Jinbu et. al., 2013). Certain health complications and medications have the ability to cause bleeding gums, mouth ulcers/lesions of the mouth, dry mouth, etc (Kisley, 2016).

Oral health concerns, such as periodontal disease, tooth loss, and dental caries are particularly on the rise in individuals of low socio-economic status (SES). In addition, this population is more prone to tobacco and alcohol use, lack of dental education, and access to clean and fluorinated water supply. All of the previous factors contribute to poor oral

hygiene (Kabore et. al., 2014; CDC, n.d.). The Georgia Department of Public Health estimates a significant number of Americans living below the national poverty line are edentulous, meaning they have lost all of their natural teeth (Kabore et. al, 2014). Low socio-economic status has a clear correlation with oral health-seeking behavior, due to its affordability and access (Rayner, 1970; Reisine et. al., 2001). These individuals are less likely to seek regular care to prevent tooth loss (Gilbert et. al., 2003). Overall, these factors can contribute to low self-confidence and mental health disorders, such as anxiety and depression (Kisley, 2016). As public health professionals, the goal should be to aid these individuals in maintaining a healthy diet and accessing affordable dental care, as well as educating them about the importance of daily brushing and flossing.

#### Research Aim

This research will inform dental and public health professionals of the factors and motivators for low-income populations to seek dental care. Specifically, this research aims to evaluate the following:

- 1. How do women living in low-income neighborhoods perceive the importance of dental health?
- 2. What are women's motivations for visiting HEALing Community Center for dental care, specifically. The HEALing Community Center is a federally qualified health center (FQHC) located in Southwest Atlanta that provides medical and dental care for low-income populations across Metro Atlanta.
- 3. What socio-contextual factors play into the decision to seek dental health care at HEALing Community Center?

#### II. Review of the Literature

The Evolution of Oral Health

Before the establishment of medical insurance, including Medicaid and Medicare; dentistry was often grouped with general medicine (Simon, 2016). People would treat tooth pain with herbal treatments including herbs and holistic medicine (Institute of Medicine (US) Committee on the Future of Dental Education, 1995). It was not until the early twentieth century that oral health practices started to advance due to health and government agencies spreading oral health education in schools (Oral Care. (n.d.). Education in schools and clinics have been a primary method utilized by health educators to inform the public of the dangers of oral disease and disparities (Bentley et. al., 1983). As more is understood about dental pathology and with the advancements in technology and research, more knowledge is gained about this field will enhance communicating the language to the general public.

The Surgeon General Report on Oral Health identifies that there has been tremendous improvements and research in the past 50 years that has contributed to oral health literature and the understanding of oral diseases (U.S. Department of Health and Human Services, 2000). Dental practices informed through research have significantly decreased the rates of oral health disparities and greatly contributed to healthy dental practices that individuals carry out (Benjamin, 2010). However, there are still high rates of uninsured and low-income population worldwide that does not have access to dental care and continues to endure oral diseases (Benjamin, 2010). It is essential that public health professionals educate the public and provide intervention programs for better access to affordable dental care options for the population that needs it the most (Nakre et. al., 2013).

Although the understanding of oral health evolution has contributed tremendously to dental and public health literature, there is still much to be learned about the practices of oral health (Peterson, 2005; Benjamin, 2010). According to the Surgeon General Report on Oral Health, there has been research conducted on oral diseases, in which practices have been developed in order to combat these oral diseases. In turn, these healthy practices have not only raised awareness of the importance of good oral hygiene, but also contributed to the decreased rates of oral diseases, nationally (U.S. Department of Health and Human Services, 2000; Patrick et. al., 2006). Due to these advancements, it is now possible to save one's natural teeth and avoid overall health issues.

#### *Diseases of the Oral Cavity*

Most researchers commonly refer to oral diseases as "silent epidemics" due to their asymptomatic traits and long-term harmful effects on the body (Stephenson, 2000; (Benjamin, 2010). In other words, it could take years for the body to show signs of an underlying oral disease. Common oral diseases include: dental caries, periodontal disease, and oropharyngeal cancers (WHO, 2018). The CDC outlines that 9 out of 10 adults have dental caries (CDC, 2016). Dental caries is the most prevalent systemic disease in the nation (CDC, 2016). It is defined as the decaying of teeth due to the mixture of the bacteria on teeth and the acidity in the breakdown of food that destroys the natural enamel on teeth (Balakrishnan, 2000; CDC, 2016). It is also the most treatable disease in the nation (Balakrishnan, 2000). Dental research over the years has established oral health practices to fight against dental caries. One oral health practice that dental professionals utilize in order to combat the prevalence of dental caries in the population is providing fluoride treatments to their patients. The fluoride will protect the tooth enamel from the acidity in

food. Fluoride is also naturally found in toothpaste and water (Balakrishnan, 2000; CDC, 2016; WHO, 2018). Other practices that individuals can instill is consuming a healthy, balanced diet and avoiding certain foods that contain sugar and acids that can lead to decay (Scardina et. al., 2012; Griffin et. al., 2012).

Periodontal disease is defined as a disorder of the gum, gingiva, or tissues surrounding the teeth (AlJehani, 2014; Nazir, 2017). WHO reports 15-20% of middle aged adults are found with severe periodontal disease, which can eventually lead to tooth loss (Rozier et. al., 2017; WHO, 2018). Certain health conditions such as diabetes increase the risk of developing periodontal disease (Preshaw et. al., 2012). Additionally, behaviors such as smoking also increase the risk of bleeding and infected gums which can increase the risk of developing periodontitis (NIH, n.d; Van Dyke et. al., 2005). Tooth loss was a common outcome of the development of periodontal disease. Due to the advancements in dental research, dental professionals screen patients routinely for periodontal disease. Additionally, if the periodontitis is not in a severe stage, there are options other than tooth extraction. For these reasons, rates of periodontal disease have substantially declined since the 1950s (NIH, n.d.). Education against periodontal disease and further research are the next steps being taken in order to prevent periodontal disease.

In addition, the incidence of oral cancer has become more prevalent over the last decade. Oral cancer is one of the top ten most common cancers in the world today, with it being the eighth most common cancer in men (Rivera, 2015; "Oral and Oropharyngeal Cancer: Statistics", 2018). It is thought that oral cancer affects men more frequently than women due to increased behavioral risks, including tobacco and alcohol use and genetic predisposition. Oral cancer can be present on any area in the oral cavity including the

tongue, cheeks, gums being the most common places where it is seen (Nuñez-Aguilar, 2018). Although largely preventable, the rates of survival still tend to be significantly low (Rivera, 2015; Le Campion et. al., 2017). Currently, the survival rate stands around 65%. It is common for oral or oropharyngeal cancers to spread to lymph nodes, throat and into the lungs, with the survival rate standing lower if the cancer has spread to other organs ("Oral and Oropharyngeal Cancer: Statistics", 2018). Factors that have been determined to cause an increased risk in the development of oral cancer include tobacco and alcohol use, and even HPV infection. It is essential to visit a dental professional if one notices a lesion in the oral cavity.

#### Dental Health Behavior

With the improvements in technology and dental research, oral health practices are constantly advancing (Patrick et. al., 2006; Benjamin, 2010). Dental health behavior refers to the patterns and practices that individuals carry out to take charge of their oral health. Maintaining proper oral health practices is essential in establishing a healthy and hygienic routine (Benjamin, 2010). Good oral health practices include: daily brushing and flossing, utilizing antiseptic mouthwash for fresh breath, tongue cleaning, visiting a dentist regularly for cleanings and check-ups for routine screenings, consuming a balanced diet with the appropriate nutrients and vitamins, and avoiding lifestyle habits that can damage one's oral health, such as use of tobacco and alcohol.

The ADA reports that home oral care is an important tool in a healthy oral cavity (ADA, n.d.). For these reasons, daily brushing and flossing has been the guide to keeping one's oral cavity clean (Benjamin, 2010). Additionally, tools such as power toothbrushes

and Waterpiks have been able to advance one's home oral care patterns to achieve a deeper clean.

Another practice that is just as important as home oral care is regularly visiting a dental professional for a routine cleaning and screening. It is not sufficient to only visit a dentist when there is a dental concern (Patrick et. al., 2006). Dental professionals have proper dental materials and machines to allow for screening and diagnosis. Routine dental visits can prevent oral disease in the long run.

Research has linked the importance of a healthy, balanced diet to the condition of one's oral health. Eating daily fruits and vegetables and avoiding acid as well as food and drinks that contain large sums of sugar avoid the breakdown of tooth enamel and prevent dental caries (Patrick et. al., 2006; Hassija & Sridar, 2014). A balanced diet allows for the proper nutrients and vitamins to be consumed for the bones to be healthy and strong. This in turn allows for a healthy and bright smile.

As with most health conditions, tobacco and alcohol has been linked to prevalence of tumor and cancer growth (Peterson, 2005). Nicotine present in the tobacco causes buildup of plaque and tartar that can cause dental caries. Furthermore, tobacco use causes bleeding of gums which can cause severe cases of gingivitis and eventually periodontal disease and eventually can lead to cancer.

#### US Healthcare System and Dental Care

Before the emergence of dental insurance, dentistry was compartmentalized in medical insurance plans, in which dental procedures would only be covered to a certain extent. The goal for the US Healthcare System is for universal health care coverage. Under the Obama Administration, the Affordable Care Act (ACA) was established as an

intervention program to meet this goal. Although the ACA was not able to provide universal healthcare coverage, it was expected to reduce the uninsured population by up to 20 million (Sparer, 2013; Metcalf et. al., 2015). States were able to choose in order to participate in Medicaid program through ACA. The ADA reports that as of 2017, 33 states have expanded their Medicaid eligibility, in which there would be limited dental coverage provided ("Dental Benefits and Medicaid", n.d.; Metcalf et. al., 2015; Kaiser Family Foundation, 2018).

The main options for dental coverage in the United States include private insurance carrier or Medicaid/Medicare. Additionally, 33.6% of the US population has no dental coverage, with 59% having private insurance and 7.4% being covered through Medicaid ("Dental Benefits and Medicaid", n.d.; "Dental Benefits Coverage in the US", n.d.). Medicaid is required to cover dental services for anyone under the age of 21, but there are minimum restrictions for adults over the age of 21 in the state in which the individual resides (Hart, 1971). Some of these states include general dental care, surgical care, orthodontic care, dentures, periodontic care, emergency care, etc ("Medicaid Coverage of Dental Benefits for Adults", n.d.). This would solely depend on the state and their Medicaid laws. Moreover, 42% of dental providers accept Medicaid insurance ("Georgia's Oral Health Care System", n.d.). Additionally, private insurance carriers have their own limits to the number of cleanings that are covered yearly, the types of examinations, and fluoride treatments, as well as any restorative care is needed. This would be solely up to the insurance company and the deductible that has to be met based on insurance coverage and payments made. For these reasons, many individuals in the United States and globally cannot afford to be covered through a private insurance carrier and pay thousands of dollars

in dental care out of pocket; or they choose not to see a dentist. This is a critical decision that can lead to oral health disparities and for these reasons, more affordable options for insurance or dental care need to be considered for lower-income populations.

The inverse care law is the principle that those who need the level of care the most do not receive the level of care they need due to barriers such as income (Hart, 1971). The inverse care law applies to low income populations or specific racial and ethnic groups (Hart, 1971; Petti et. al., 2011). It is crucial to get these populations of individuals access and affordability of care they deserve.

Status of Oral Health in the United States

According to the US Surgeon General Report, every individual endures the burdens of oral diseases at one time in their life. For example, birth defects such as cleft/lip palates are common in children, to periodontal diseases commonly seen in adults and lastly total tooth loss and oral and craniofacial cancers being commonly diagnosed in the elderly population (U.S. Department of Health and Human Services, 2000). For these reasons, oral health will always be a common concern seen in the United States and it is essential to have trained professionals along with the research and knowledge in order to address these concerns to improve quality of life for individuals of the United States. 1 in 5 low-income adults have reported their oral cavity is in poor condition; with 1 in 4 adults avoiding smiling due to the poor condition of their teeth (ADA, n.d.). In 2015, the ADA had reported that 77% of adults stated that they planned to visit a dental professional within the next year, but only 37% had followed through with what they had stated (ADA, n.d.). This shows the level of neglect in the United States that individuals have for their dental care and oral health.

Level of education, gender and socio-economic status are a few of the social determinants of health that affect one's health seeking behavior. Economic status and education in particular have been shown to govern patterns of health seeking behavior. Furthermore, lack of financial resources and poverty are closely associated to a high occurrence of poor oral health.

# State of Georgia's Oral Heath

The State of Georgia has made substantial efforts to raise awareness of oral care and eliminating oral health disparities, as well as establishing affordable dental care options for the uninsured, underinsured, and low-income populations (Kabore et. al., 2014). However, according to the Georgia Department of Public Health, the state of Georgia did not meet certain criteria of the Healthy People Intervention Program, established by the CDC in order to track states' progress of oral health care (Kabore et. al., 2014). Some of which include Georgia's dental caries and early cancer detection fall behind the national standard (Kabore et. al., 2014). For these reasons, the state has issued an action plan in order to enrich oral health care services to the population. According to the Georgia Dental Association, strategies have been developed in order to meet and exceed the Georgia Dental Action plan, some of which include establishing partnerships with free or reduced cost dental clinics or providing more effective options in Medicaid insurance plan in order to promote affordable dental care for the uninsured and low-income populations (ADA, n.d.; Metcalf et. al., 2015). Additionally, creating diversion programs to direct patients to the specialized care they deserve can promote health education ("Georgia's Action for Dental Health", n.d.). The State of Georgia has made significant progress through needs

assessments and numerous reports, but more progress continues to be made through research (Hoffman et. al., 2017).

Due to the state of Georgia's high population of individuals that identify as being of low socio-economic status, it is particularly important to address oral health as a public health concern. As of 2010, Georgia had a poverty rate of 18%. This rate continues to increase with lack of education and evolving government policies (Kabore et. al., 2014). With an increasing poverty rate, the State of Georgia faces many obstacles for communities that are not able to regularly visit a dental professional. In turn, this can contribute to the elevating rates of oral health disparities. In order to combat elevating rates of oral health disparities, intervention programs and initiatives such as Healthy People 2020 have been established in order to project and maintain national goals for the health of the American public. The Healthy People 2020 program serves as a public health intervention used in order to foster a healthy quality of life constituting healthy behaviors and healthy improvements as well as surpassing health equity while eliminating health disparities ("Healthy People 2020", n.d.). These initiatives and goals are used to parallel statewide oral health policies to promote better health outcomes for the state of Georgia.

The Public Health Significance of FQHC's

Federally Qualified Health Centers (FQHC) such as HEALing Community Center have been established as an intervention in the effort to combat elevating rates of oral health disparities by addressing the needs of the low-income population in the city of Atlanta (Amin et. al., 2014). The HEALing Community Center not only serves as a place of health, but a place where true community healing takes place. This health center takes a health education approach to instill in their patients the importance of oral health and its direct

relation to overall health. The HEALing Community Center focuses on health education that prioritizes preventative measures to take in order to avoid further dental complications (HEAL, n.d.). Preventative measures such as regularly visiting a dentist for scheduled comprehensive oral health exams and dental cleanings brushing and flossing appropriately and maintaining a balanced diet that will contribute to a healthy body and mouth (Peterson 2005, Hassija & Sridhar, 2014).

Public health education continues to be the leading instrument for prevention of disease in the United States and globally. Community health education allows for health betterment of a community of individuals through the spread of knowledge (Houle, 1982). Health education in the aspect of oral health has been reported to change health behavior, increase oral health practices, thus leading to the decrease of oral health disparities (Houle, 1982).

# Building Bright Smiles through Oral Health Education

The purpose of health education remains to spread knowledge about practices individuals and communities take in order to prevent against disease. Health education is a critical component of preventative care in the United States. With the proper preventative care, one can save expenses and not endure tooth pain in the long run. Health education also allows for the demonstration and learning of skills and practices to benefit one's health (Nakre et. al., 2013). It can be conducted in community settings, office settings, or one-on-one taught by a health professional or volunteer.

Education is a key factor in future success and with the importance of health education programs in schools, children learn the importance of healthy living in all aspects of life (Flanders, 1987). As previously stated, the emergence of dental education in schools

has made a significant impact in spreading the awareness of oral health. Based on research, health education is not necessarily the culprit for beneficial health behaviors, but the knowledge serves as an instrument that allows for individuals to take charge of their health (Nakre et. al., 2013). This is also true in dentistry as well as with any health outcome. It has also been studied that health education allows for the change in behavior which leads to better health outcome (Manoranjitha et. al, 2017). For example, oral health educators teach individuals about the importance of a balanced diet, daily brushing and flossing, and the importance of regularly visiting a dentist in order to prevent oral health disparities; this in turn provides the individual with more advanced knowledge to visit their dentist and receive the care they need. However, oral health education has considerably contributed to the significant decline in oral health disparities, as well as a positive change in behavior (Bentley et. al., 1983; Flanders, 1987; Nakre & Harikiran, 2013; Bhardwaj et. al., 2013).

Access to care is difficult in low income populations, in which health education can serve as the primary instrument to decrease the prevalence of oral health disparities (Amin et. al., 2014). Today, it is common that churches, schools, community health centers, and doctors' offices promote health education through free classes as well as with pamphlets and brochures for patients and community members (Bentley, 1983; Bhardwaj et. al., 2013; Amin et. al., 2014). Intervention programs are also an important aspect of health education. These programs are established to reach hard to reach populations and spread awareness through education.

#### Public Health Significance

Dental public health is a critical sector in public health. However, it is quite often omitted from branches of public health due to its lack of research interest and knowledge

from the general public. In recent years, dental public health has made a re-emergence in the study and research of public health, particularly in communities of low socio-economic status. According to the ADA, dental public health focuses on population-level oral health, health promotion, oral health surveillance, and policy implementation ("Dental Public Health", n.d.). In the study of dental public health, it is not always about access, but about health equity and health policies. Particularly in the state of Georgia, 41.5% of individuals do not have access to dental coverage and this hinders their oral health and the care they could receive (Kabore et. al., 2014). The state of Georgia has devised intervention programs and government-affiliated operations, such as the HEALing Community Center, in order to combat the needs and oral health disparities of these communities. This study aims to contribute to existing literature and inform public health and dental professionals by qualitatively exploring dental perceptions of low-income women of the HEALing Community Center through the utilization of the Theory of Planned Behavior. TPB constructs of attitudes, subjective norms, and perceived behavioral control can lead one to intend to behave in a certain manner; in which this intention leads to the specific behavior. Furthermore, TPB constructs have been utilized in previous literature to inform dental health seeking behavior. For this reason, this framework and its constructs will be used to support findings of this study. TPB will aid in explanation of the motivators and sociocontextual factors for seeking dental care at HEALing Community Center.

#### III. Research Methods

Study Design

This study employs a qualitative study design with the use of primary data through one-on-one, semi-structured interviews with 20 low-income women who seek dental care at the HEALing Community Center. TPB constructs were used to inform interview guide questions in order to understand the motivations and perceptions of seeking dental care at HEALing Community Center. Emory University Institutional Review Board (IRB) has reviewed and approved this study.

# Sampling and Recruitment

Study population consisted of women ages 18+ who were established patients of the HEALing Community Center (had at least one prior visit to the clinic) with low-income status. Additional inclusion criteria included: English-speaking individuals as well as being a state of Georgia resident. Those excluded from the study included men, women under the age of 18, and first-time patients of HEALing Community Center.

In total, 20 women were recruited to participate in this study. Participants were recruited using convenience and purposive sampling with the use of flyers dispersed across bulletin boards, doors, and inside offices of the HEALing Community Center. Flyers will contain information including: target population, what the study is interested in learning, where to go for additional information, and incentive information. If patients did not voluntarily ask to participate in the study, the principal investigator approached participants with a warm welcome and friendly conversation before relating the study to them.

After participants were recruited and understood the study, the next step of recruitment was to conduct an eligibility survey that determined if participants met study

criteria. An eligibility survey containing demographic questions was utilized to determine the eligibility of participation in this study. This survey consisted of 10 questions ranging from asking about gender, learning about oral health, to how much they paid for their visit, insurance status, and utilization of HEALing Community Center services. Eligible participants were considered 1) low-income patients 2) patients at the HEALing Community Center. Ineligible participants would include 1) anyone under the age of 18, 2) Insurance status not indicated as low-income.

#### Data Collection and Measures

The researcher led an introduction into the study, in which oral consent was obtained in order to take notes and record the interview. The scope of the study and informed consent process was verbally summarized and discussed with the participant. The informed consent process took place during the introduction phase, before the commence of the recorded interview. Participants were encouraged to ask any questions related to the study, consent process, or any concerns that may arise. Interviews were recorded using voice recording device as well as computer software. Interviews were safely secured and stored on a password protected computer. Additionally, participants were informed that their personal health information (PHI) would be non-identifiable and would be able to choose a pseudonym of their choice in order to protect anonymity. If participant did not choose a pseudonym, one would be chosen for them by the lead investigator. Principal Investigator will be responsible for destroying all recordings with the completion of the study.

As previously stated, data for this study will be collected using semi-structured interview. The open-ended nature of the questions allowed the interviewee to share their

unique experiences. Topics of interest included topics that were informed by the literature concerning patient perceptions to dental health care such as personal/communal oral health concerns, services individuals seek, motivations for seeking/not seeking a dentist, and lessons learned about oral health. Questions were organized by topics including 1) Brushing & Flossing Habits leading to Oral Health, 2) Past Dental Experiences, 3) Theory of Planned Behavior Constructs 3) Factors to Seek Dental Care, and 4) Factors and Experiences of coming to HEALing Community Center. Interviews lasted between 20-30 minutes. The overall time burden for the study was no longer than 45 minutes.

# Confidentiality

Confidentiality was maintained throughout the course of the study through the use of study ID numbers, which were assigned to each study participant. All data pertaining to the study that can be traced back to a participant will be destroyed at the end of the study. *Potential Risks/Discomforts to Study Participants* 

Participants were reminded that their participation was completely voluntary and they were not obligated to share any information that they were not comfortable sharing and that their responses would lead to furthering dental health education for future generations. Therefore, this study posed very little risk to none. For instance, there was no risk or loss of privacy or breach of confidentiality.

# Benefits

There were many benefits for the patients of this study, some of which included: an increased knowledge of oral health and hygiene. This research provided numerous individuals and professionals with knowledge of future research steps as well as a contribution to the knowledge of oral health of future generations. For these reasons, areas

of knowledge that would be strengthened include oral health, oral hygiene, and dental care received based on insurance status.

### Compensation

Compensation for time and participation in this study was provided after successful completion of all study components required by the lead investigator. Compensation was awarded in the form of a \$10 gift card. No tax information was required for compensation.

Data Analysis: Data Management and Monitoring

Hard copies of all data were stored in a binder in a locked compartment of the lead investigator's home office. Additionally, any electronic data will be secured in a folder on a password protected computer. Data was only accessible to the study team (lead investigator, faculty advisor, and committee members). Aggregate data and de-identified data will be able to be accessed after the successful completion of this thesis requirement. Only then, would the public have access to this unidentifiable data.

# Analysis/Statistical Plans

Data analysis and management was conducted using MAXQDA software for the coding analysis phase. Thematic Analysis was utilized in order to create codes that will be considered emerging themes throughout the research process. All emerging themes that are apparent in the research were then established into a codebook. This codebook contained codes and subcodes. The coding phase was conducted multiple times to ensure a thorough codebook that analyzes all emerging themes throughout the research. The coding process was carried out with the help of the research team in order to establish a high inter-coder reliability. The coding team consisted of two MPH students as well as the principal investigator. Both student coders are CITI Certified in Socio-behavioral Focus for Human

Subjects Protection. Codes, definitions, inclusion and exclusion criteria, along with example quotes was compared and utilized for the establishment of the codebook.

#### **Student Contribution**

The Principal Investigator, Yasmin Kashfipour, MPHc, was responsible for devising thesis project, including protocol, consent forms, interview guide, as well as carrying out IRB submission process along with devising any required documentation. Additionally, data collection through the form of recorded, semi-structured interviews, as well as consent process was administered by the principal investigator at HEALing Community Center.

Data was then transcribed by VerbalInk© transcribers. The PI was then able to deidentify data so no personal health information (PHI) would be able to be traced back to participants.

Data analysis began with PI developing codebook with respect to common themes seen throughout data. Codebook and de-identified transcripts were analyzed by coding team of two students: Jacob Horvath, MPHc and Lucy Whitehead, MPHc and PI: Yasmin Kashfipour, MPHc. The PI was able to adapt codebook through this process by the comments received by the coding team.

Following the coding process, PI was able to analyze data collected and present data in the form of a formal thesis project.

# Part IV. Thesis Manuscript

"More than just a Tooth Problem": A Theory-Based Qualitative Study Exploring Dental Perceptions at a FQHC

By

Yasmin S. Kashfipour

Bachelor of Science in Microbiology University of Georgia 2017

Thesis Committee Chair: Dawn L. Comeau, PhD, MPH

An abstract of
A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
in partial fulfillment of the requirements for the degree of
Master of Public Health
in Behavioral Science and Health Education
2019

#### **Abstract**

"More than just a Tooth Problem": A Theory-Based Qualitative Study Exploring Dental Perceptions at a FQHC

By Yasmin S. Kashfipour

**Introduction:** Oral health remains a critical problem in public health, especially in low income or impoverished populations. Research has proven that there is a direct link between oral health and one's systemic health and well-being. Health seeking behavior and the anxiety related to visiting the dentist remains an enigmatic topic in health care. In addition, the rising cost of health care adds another dynamic that affects how people seek oral health care. Research shows that health seeking behavior has direct effect on health outcomes. Although there are community health centers known as FQHC's (federally qualified health care centers) that were created to help address the financial barrier to health care, there are little resources available that address the factors that contribute to oral health-seeking behavior. The HEALing Community Center was established in 2015 to help address some of these issues and aid people seeking comprehensive care, in overcoming some of the psychosocial and financial barriers that some may face when seeking dental treatment.

**Objective:** This study explores the dental health perceptions of low-income women of the HEALing Community Center through the application of Theory of Planned Behavior. Furthermore, this study aims to understand the motivations along with socio-contextual factors that determine health seeking behavior of receiving dental care, specifically at HEALing Community Center. Lastly, the study examines the dental habits of women and how this can lead to overall better health of their families.

**Methods:** Qualitative methods were used to collect primary data through semi-structured, one-on-one interviews with women who seek oral health care at the HEALing Community Center. Interview questions addressed the constructs of Theory of Planned Behavior. Thematic analysis was carried out utilizing MAXQDA software in which codes would be used to create a comprehensive codebook for analysis purposes.

**Results:** Five themes emerged regarding determinants that influence women to seek care at the HEALing Community Center, women's perceptions of dental care, and the sociocontextual factors that influence individuals to seek care at HEALing Community Center, including: Dental Anxiety, Friends and Family Influence, Aesthetics, Quality of Services, and Lessons Learned

**Conclusions:** Based on these findings, it is essential to understand that friends and family influence, quality of services, aesthetics, and lessons learned are factors that play a role in dental health seeking behavior amongst low-income women. This suggests that it may be best to provide more effective health promotion methods, locate FQHCs in disproportionately affected areas of Atlanta, and provide educational services and better access to care.

"More than just a Tooth Problem": A Theory-Based Qualitative Study Exploring Dental Perceptions of Low-Income Women at a FQHC

By

Yasmin S. Kashfipour

Bachelor of Science in Microbiology University of Georgia 2017

Thesis Committee Chair: Dawn L. Comeau, PhD, MPH

A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Behavioral Science and Health Education 2019

#### Introduction

Oral health is an essential component of a healthy lifestyle; good oral health is essential to the way we take in nutrients and energy in our bodies through the food we consume. More importantly, oral health is critically associated with other health outcomes, which is why it is imperative to seek the appropriate oral health care and take preventative measures to protect against diseases of the oral cavity, craniofacial diseases, and even cancer (Benjamin, 2010; Kabore et. al., 2014; Kane, 2017). In other words, oral health has the ability to affect all aspects of the body and overall health. Therefore, it is crucial to increase awareness, and implement prevention and intervention strategies to combat oral health disparities.

It has been reported that the "mouth is the window to general health" (Alpert, n.d.). The oral cavity can display signs of illness and weakened immune system that occurs throughout the rest of the body. Pregnancy complications, coronary heart disease, diabetes, kidney disease, stroke, and respiratory diseases have been linked with poor oral health (U.S. Department of Health and Human Services, 2000; Kane, n.d.). Oral health concerns, such as periodontal disease, tooth loss, and dental caries are particularly on the rise in individuals of low socio-economic status (SES). In addition, this population is more prone to tobacco and alcohol use and lack of dental education. All of the previous factors contribute to poor oral hygiene (Kabore et. al., 2014; CDC, n.d.).

The Georgia Department of Public Health estimates a significant number of Americans living below the national poverty line are edentulous, meaning they have lost all of their natural teeth (Kabore et. al, 2014). Low socio-economic status has a clear correlation with oral health-seeking behavior, due to its affordability and access (Rayner,

1970; Reisine et. al., 2001). These individuals are less likely to seek regular care to prevent tooth loss (Gilbert et. al., 2003). Overall, these factors can contribute to low self-confidence and mental health disorders, such as anxiety and depression. As public health professionals, the goal should be to aid these individuals in accessing affordable dental care and educating them about the importance of daily brushing and flossing.

Dental health behavior refers to the patterns and practices that individuals carry out to take charge of their oral health. Partaking in proper dental health behavior and good oral health practices is essential in establishing a healthy and hygienic routine (Benjamin, 2010). Good oral health practices include: daily brushing and flossing, utilizing antiseptic mouthwash for fresh breath, tongue cleaning, visiting a dentist regularly for cleanings and check-ups for routine screenings, and avoiding lifestyle habits that can damage one's oral health, such as use of tobacco and alcohol. The ADA reports that home oral care is an important tool in a healthy oral cavity (ADA, n.d.). For these reasons, daily brushing and flossing has been the guide to keeping one's oral cavity clean (Benjamin, 2010). Additionally, tools such as power toothbrushes and Waterpiks have been able to advance one's home oral care patterns to achieve a deeper clean. Another practice that is just as important as home oral care is regularly visiting a dental professional for a routine cleaning and screening. It is not sufficient to only visit a dentist when there is a dental concern (Patrick et. al., 2006). Dental professionals have proper dental materials and machines to allow for screening and diagnosis. Routine dental visits can prevent oral disease in the long run.

Dental public health is a critical sector in public health. However, it is quite often omitted from branches of public health due to its lack of research interest and knowledge

from the general public. In recent years, dental public health has made a re-emergence in the study and research of public health, particularly in communities of low socioeconomic status. According to the ADA, dental public health focuses on population-level oral health, health promotion, oral health surveillance, and policy implementation ("Dental Public Health", n.d.). In the study of dental public health, it is not always about access, but about health equity and health policies. Particularly in the state of Georgia, 41.5% of individuals do not have access to dental coverage and this hinders their oral health and the care they could receive (Kabore et. al., 2014). The state of Georgia has devised intervention programs and government-affiliated operations, such as federally qualified health centers, in order to combat the needs and oral health disparities of these communities. This study aims to contribute to existing literature and inform public health and dental professionals by qualitatively exploring dental perceptions of low-income women of an FQHC, specifically the HEALing Community Center through the utilization of the Theory of Planned Behavior (TPB). TPB constructs of attitudes, subjective norms, and perceived behavioral control can lead one to intend to behave in a certain manner; in which this intention leads to the specific behavior. Furthermore, TPB constructs have been utilized in previous literature to inform dental health seeking behavior. For this reason, this framework and its constructs will be used to support findings of this study. TPB will aid in explanation of the motivators and socio-contextual factors for seeking dental care at FQHC for this study.

The purpose of health education remains to spread knowledge about practices individuals and communities take in order to prevent against disease. Health education is a critical component of preventative care in the United States. Based on research, health

education is not necessarily the culprit for beneficial health behaviors, but the knowledge serves as an instrument that allows for individuals to take charge of their health (Nakre et. al., 2013). This is also true in dentistry as well as with any health outcome. It has also been studied that health education allows for the change in behavior which leads to better health outcome (Manoranjitha et. al, 2017). For example, oral health educators teach individuals about the importance of daily brushing and flossing and the importance of regularly visiting a dentist in order to prevent oral health disparities; this in turn provides the individual with more advanced knowledge to visit their dentist and receive the care they need. Community health education allows for health betterment of a community of individuals through the spread of knowledge (Houle, 1982). Oral health education has considerably contributed to the significant decline in oral health disparities, as well as a positive change in behavior (Bentley et. al., 1983; Flanders, 1987; Nakre & Harikiran, 2013; Bhardwaj et. al., 2013).

Access to care is difficult in low income populations, in which health education can serve as the primary instrument to decrease the prevalence of oral health disparities (Amin et. al., 2014). Today, it is common that churches, schools, community health centers, and doctors' offices promote health education through free classes as well as with pamphlets and brochures for patients and community members (Bentley, 1983; Bhardwaj et. al., 2013; Amin et. al., 2014). Intervention programs are also an important aspect of health education. These programs are established to reach vulnerable populations and spread awareness through education.

This research study explores the factors and motivators for low-income populations who seek dental care. The research questions are as follows:

- 1. How do women living in low-income neighborhoods perceive the importance of dental health?
- 2. What are women's motivations for visiting a federally qualified health center (FQHC) for dental care, specifically?
- 3. What socio-contextual factors play into the decision to seek dental health care at a FOHC?

#### Methods

This qualitative study included semi-structured interviews with 20 low-income women who seek dental care at a federally qualified health center in Georgia. Domains explored in this study included participant personal oral health concerns, services individuals seek, and motivations for seeking dental care at a FQHC.

Sampling and recruitment

The HEALing Community Center, an Atlanta-based FQHC was the study site. Specifically, this study focused on the dental clinic. This FQHC provides an abundance of specialized healthcare services, such as primary care, dental care, women's health on a sliding scale to vulnerable populations. Demographically, the HEALing Community Center serves vulnerable populations: including low-income, underinsured, and uninsured population of metro-Atlanta.

Study population consisted of women ages 18 and over who were established patients of the HEALing Community Center (had at least one prior visit to the clinic) and self- reported as low-income. Additional inclusion criteria included: English-speaking individuals as well as being a Georgia resident. First-time patients of HEALing Community Center were excluded from the study in order to assess behavior and

motivators of seeking dental care at a FQHC, which would have required at least one previous experience in order to provide rich, thick description in order to answer the research questions.

The study used convenience and purposive sampling. The research team dispersed flyers on bulletin boards, doors, and inside offices of the HEALing Community Center. Once participants responded to the fliers by visiting the dental clinic, they were able to express their interest in the study, through which participants were able to partake in an eligibility survey, to ensure they met study criteria. This survey consisted of 10 questions including items on gender, income, learning about oral health, oral care costs, insurance status, and utilization of HEALing Community Center services.

#### Data collection

The interview guide consisted of open-ended questions to prompt the interviewee to share their unique experiences. TPB constructs were used to inform interview guide questions in order to understand the motivations and perceptions of participants who were seeking dental care at HEALing Community Center. The interview guide included the following domains: brushing & flossing habits, past dental experiences, Theory of Planned Behavior constructs, factors that promoted them to seek dental care, and experiences with the HEALing Community Center.

# Ethical approval

Emory University Institutional Review Board (IRB) reviewed and approved this study. Before beginning the interview, participants completed verbal informed consent. Confidentiality was maintained throughout the course of the study through the use of study ID numbers, which were assigned to each study participant. Additionally,

participants were informed that their personal health information (PHI) would be non-identifiable. Each participant chose a pseudonym in order to protect anonymity. All data were de-identified to protect confidentiality. Incentives in the form of a \$10 gift card was awarded for time and participation in this study.

#### Data Analysis

The audio files from the individual interviews were transcribed verbatim by a professional transcriptionist. MAXQDA software was used to thematically analyze the data. The PI conducted "repeated readings" of the transcripts in order to identify emerging themes (Braun & Clark, 2006). All researchers reviewed the transcripts independently and collaboratively to discuss areas of divergent coding. Codes and subcodes that answered the research question were grouped into emergent themes which were then organized into a codebook that was iteratively revised by the research team.

#### Results

The themes that emerged in the data included: 1) dental anxiety and participants' perceptions of visiting a dentist; 2) participants' descriptions of good oral health; 3) factors influencing participants decision to visit HEAL for an oral health appointment; 4) participants' education about the importance of oral health; and 5) lessons learned by participants about the importance of oral health.

#### Dental Anxiety with regards to perceptions of the dentist

Participants discussed their impressions of visiting a dental professional. Furthermore, they discussed their trust in dentist(s) or any experiences with a dentist that made a lasting impression. Additionally, if a participant described having fear based off a

previous dental experience, they identified as having dental anxiety. This is especially true when one participant specifically stated:

"Well, I used to have a fear of dentists and so I acquired a cavity and I had a bad experience with- I was never always afraid of it. It's just a bad experience that I had. [Age: 50, OS]

Several participants expressed their anxiety about visiting a dentist. Dental anxiety was defined as a fear of seeing a dental professional due to bad, past experiences. Fifteen of twenty participants described dental anxiety as being nervous about the visit, afraid of needles and drills that might be used during the visit, or previous traumatic experience that may have caused fear and mistrust in a dentist. For example, one participant stated:

"I was devastated. [Laughter] I was so afraid of the drill and how everything looked and the utensils that was up there. I was just afraid. And it just put a lot of fear in me." [Age: 63, VD]

Furthermore, another participant stated:

"I wish that my oral health was better, and I do fault myself because, in the past I've just—I've always had a fear of dentists. Even as a small child, I had experiences. So that's one of the reasons why I kind of let my oral health get out of hand." [Age: 38, CS]

These participants have expressed their fear of dentists in association with why they have not sought out care. In other words, their dental anxiety has contributed to their poor oral health conditions due to the lack of health-care seeking behavior.

On the other hand, some participants described visiting a dentist, despite their dental anxiety. Knowing the importance of taking care of their oral health, the pain was something they endured to get the care they needed. One participant stated:

"When I just come here. I've never been into the dentist for a long time because I used to be scared, because I was afraid of pain. (...) Pain is not easy, but you still got to go." [Age:44, KP]

This participant specifically states that she does not particularly like visiting a dental professional but understands the importance of her oral health and recognizes the need to seek care, despite her anxiety. Additionally, participants commented on their provider-patient interaction and how this contributed to seeking dental health services, despite their dental anxiety. In other words, when their provider was able to sit and discuss procedures with them and understand their fear, patients were more likely to cooperate and experience less dental anxiety and thus continue to seek dental health services.

There were participants who expressed overcoming their dental anxiety. For example, one patient, particularly, had previously experienced anxiety and overcame her dental anxiety by a difference in dental practices between dental practitioners. In other words, when a dentist expressed concern and less judgement with a patient's dental anxiety, the patient was more likely to have less anxiety and remain calm. This was evident when she stated:

"I guess once I got over my anxiety or the fear of that Novacain wearing off when I came to this country and things were different. The process didn't take that long and the needle was much smaller—"

She had later stated, "And it was quick, and so as soon as they did the prick I started feeling it and I was like, "Oh, this is really cool." Even when they were done I'm like, "Oh I didn't feel a thing." So yeah--" [Age: 50, OS]

This participant described her dental anxiety in terms of fear of needles and how one bad experience did not ruin her perception of the dentist; she was surprised when she received an injection and did not have any pain.

## Aesthetics as a definition of Good Oral Health

When asked to define what "good oral health" means to the participants, a common definition and subtheme that emerged included aesthetics. Aesthetics was defined as aspects of physical appearance or qualities that illustrate one's perception of the importance of their oral health. In other words, participants often referred to aesthetic characteristics or qualities when defining what good oral health meant to them. For example, common participant responses included the desire of having a bright smile, white or straight teeth, and cosmetic dentistry procedures in order to achieve their desired aesthetics. A total of 14 participants discussed aesthetics with relation to good oral health. Participants described the aesthetics of the teeth with relation to their lifestyle, maintaining a job, self-confidence, and overall appearance. For instance, one participant stated:

"So when I became a teenager and able to work, I got a job. Then I worked, then I saved my money and I had my own teeth pulled (...) Because I was tired of not smiling and going through the feeling of just feeling so—anybody could embarrass me at any time. You know." [Age:63, VD]

Another participant particularly had low self-esteem from a previous encounter where she was asked to leave a job position due to the general condition of her teeth. She was asked to leave her job as a front desk receptionist because she had no teeth. This participant stated:

"It's very hard. And for anyone that does not have teeth and is going through what I'm talking about, they know exactly what I mean and how hurtful it can be. People can be very hurtful (...)"

For these reasons, this participant specifically also stated:

"sort of like your first impression. It's extremely important for jobs, for meeting people (...)" [Age:59, SS]

Similarly, another participant stated:

"For me, my appearance is everything. I'm an entrepreneur and I don't need to be in front of nobody snaggle toothed. It's just professional. You know, and to me, a woman, for self-esteem. It contributes to—there are a lot of contributing factors for me. You know, self-esteem, presentation, you know all of those things are important for my character." [Age: 34, SA]

Aesthetics was an emotional topic for some participants as it related to their personality and appearance; women generally associated the presence of their teeth to feel confident and presentable. This is evident when one participant stated:

"(...) It's devastating when you lose 'em, devastating for a woman that never went without her teeth. It's devastating. Cause it's her appearance, her personality, her self-esteem, everything. [crying] So it means a lot to me, my teeth, they really do." [Age: 58, SJ]

This participant also discusses aesthetics being a reason she sought care when she stated:
"That's the big reason why I came 'cause I'm tired of feeling sorry for me and I want some confidence back. (...) I wanna be able to smile. I don't even wanna go out [crying]" [Age: 58, SJ]

Participants often referenced aesthetics of their teeth pertaining to a description of themselves. In other words, participants described the aesthetics of their teeth as not allowing them to be employable, be in a committed relationship, and be self-confident.

# Quality of Services as a factor influencing the decision to come to HEALing Community Center

Quality of services was the most abundant theme that emerged in participant interviews. Quality of service was defined as how well the excellence of care played a role in being a patient at the HEALing Community Center. All 20 participants had described the quality of services seen at HEALing Community Center as a reason why they continued seeking care at the HEAL facility.

The participants had positive experiences with the HEALing Community Center and this was the reason they continued to seek care at the facility. For instance, one participant explains:

"It's the warmth. It's the people here. The people here and the great experience makes you feel like you're at home, you understand? They give you love. They smile, you know. Yeah, they're cool." [Age: 38, CS]

Many participants also mentioned the kindness and care that the staff displayed such as continuously smiling at the patients, making them feel comfortable and at ease, and being professional and respectful towards patients. Another participant stated:

"(..) this is family now to me that I've gotten to know them. I'd much rather not go anywhere else. This is family to me. They show concern for my needs and things that are going on with me. They work with you here." [Age: 45, AM]

Participants explained that the clinic accommodates patients to receive the care they need on an income basis. Participants reported that they are treated like a family member. The staff encourages them to continue to seek care and stay consistent with their appointments to maintain good oral health. Additionally, women who were mothers discussed bringing their families to the HEALing Community Center due to the quality of services. This was evident when one participant stated:

"The staff and just the place in itself. It's very comfortable with me and my kids. I want me and my kids to be somewhere where people make you feel respected and they make you feel comfortable." [Age: 38, CA]

Another participant stated:

"I'm very impressed with the staff (...) I'm complexly impressed just from the time I checked in, from the time I left. Yeah. (...) They even have security at the front. I feel safer."

[Age: 34, SA]

The exceptional service given by the dental staff at the HEALing Community Center continues to be one of the main factors that influence individuals to come to the HEALing Community Center.

# Friends and Family Influence as a means of education about oral health

Friends and family influence was defined as how participants' friends and family help them make decisions regarding their own oral health. This theme is directly related to the TPB construct of subjective norms. This construct is essential in understanding how peers and family can influence attitudes that can lead to health behavior. In this study, subjective norms are related to understanding how friends and family influences the behavior of brushing, flossing, visiting the dentist, and overall care of their oral health.

Participants discussed how their friends and family members' oral health habits had motivated or discouraged them with their own oral health. Some participants discussed learning about the importance of oral health at a young age from parents, siblings, school, etc., while some had discussed learning the importance of taking care of their oral health much later in life from their dentist. Additionally, some participants had discussed the poor oral health habits of their friends and family members, which encourages participants to take care of their oral health,

Friends and family influence with regards to one's oral health was applicable in positive and negative situations. For example, one participant discussed how her parents' smoking habits had a negative influence on her oral health as they influenced her to being smoking:

"Smoking takes away think pink gum that we have. Smoking allows bacteria into your mouth, especially if you're the type that share cigarettes (...) My parents were smokers. (...) then I smoked from the age of 12 or 13 till about 28 (...) My mother has passed. So I was like, "I gotta make a change. I want to do better. (...) I have tried so hard to get them to stop smoking. I be like "Look at me!" And you know I've started walking now (...)" [Age: 29, CK]

As a previous smoker, this participant discusses how she started this habit and how she eventually quit and how this changed her lifestyle and her oral health. She proceeded to discuss how she tries to educate her friends and family members about the dangers of smoking and the negative impact on oral health?

Another participant also had a similar instance where she had a family impact her education about oral health. The participant stated:

"My dad didn't have very good oral health habits. My mom did. He would use a Waterpik.

He had a lot of gum issues. I just remembered, he had a lot of gum issues, and he hated the dentist. So, I kind of just fall right into being like him, you know, with the kind of the hating – just, the whole energy of that like, dentist. You know?"

"Actually, ultimately my dad's motivated me because I do have some gum issues, and mine are just not as inflamed as his is (...) – especially because of the Waterpik. That's where he was recommended to have one way back in—and that's why I asked and they got me one at the program." [Age: 50, FD]

Ultimately, this participant had a positive experience and learned from her father's oral health journey in order to aid her own. Additionally, her father's positive experience with the Waterpik encouraged her to obtain her own to prevent further gum damage. This participant also discussed her father's smoking habits which led to her own but after observing what her father went through, she had decided to change these habits and take charge of her oral health.

On the other hand, some participants had been encouraged and influenced by their children or grandchildren's oral health habits. Many women stated that due to their poor oral health habits, they ensured their children and grandchildren would not endure the pain that they experienced. With their next generations keeping up with their oral health, these women would look at their children and grandchildren's teeth and learned how important it was to take care of their oral health, hence why they sought out care. A 63-year-old participant discussed how she joyfully admired her grandchildren's teeth and understood that she should have taken better care of her oral health when she was younger. This participant specifically had grandchildren who had taken care of their teeth and she would

tell her grandchildren to brush their teeth. Based on her experiences, her children had told her grandchildren the importance of taking care of their oral health and thus the education had continued and spread through generations.

Friends and family influence is a crucial factor of being educated about oral health. Individuals adopt behaviors through observing those around them, therefore if individuals are surrounded by good habits and behavior, they are likely to adopt those behaviors and educate others concerning these behaviors.

#### Lessons Learned about the importance of oral health

The final theme was concerning what participants learned from their oral health journeys overall. In other words, lessons learned served as a reflection period for participants to take their experiences and understand moving forward in their dental journey. This theme was defined as looking back at past behavior and altering negative consequences of oral health. Lessons learned included subthemes of altering habits moving forward, staying away from certain foods, and their willingness to share their experience. Participants discussed a variety of lessons that they learned from their dental journeys such as: going to their dental appointments regularly, teaching their children how diet and dental hygiene is important for their oral health, and to not let their children and grandchildren experience the pain they endured. These lessons influenced their beliefs with regard to oral health and hygiene, which corresponds to the TPB construct of beliefs.

One participant particularly stated:

"It's important to take care of those things that are precious 'cause you can't get these back." [Age: 58, SJ]

Additionally, another participant stated:

"The way your mother does when you was younger and be consistent with yourself when you get older 'cause you'll start having problems. That's pretty much it. Consistency." [Age: 27, JH]

Lastly, another participant discussed staying away from certain foods when she stated: "Regularly, I would probably come in for more cleanings. (...) I intend on continuing to eat well, eliminating certain things out of my diet (...) Being circumspect with what we put in our mouths, and allowing certain knowledge to come into us." [Age: 29, CK]

All of the participants were able to share the lessons learned from their dental experiences and state how they would alter their habits and behavior moving forward. Ranging from brushing and flossing more to being cautious about what to put into their mouths; all participants were able to comment on how to move forward with the education they have acquired to the future of their oral health.

#### **Discussion**

This qualitative study addresses three main questions:

- 1.) How do women living in low-income neighborhoods perceive the importance of dental health?
- 2.) What are women's motivations for visiting a federally qualified health center (FQHC) for dental care, specifically?
- 3.) What socio-contextual factors play into the decision to seek dental health care at a FQHC?

Based on study findings, women have positive perceptions of oral health, but also have a perception that aesthetics of your teeth defines good oral health. Although women experienced a degree of dental anxiety, the perceptions of their dentist at a

FQHC were positive and influenced them to seek care. Furthermore, there are numerous indicators that play a role in women of low-income status, who seek dental care at a FQHC, such as quality of services.

Dental anxiety as a perception of dentists was a common belief and pattern of behavior amongst participants who feared different aspects of seeking dental care, such as the sounds of drills, needles, environment etc. (Appukuttan, 2016). Based on previous literature, dental anxiety is a strong factor for participants who decide not to seek dental care and can result in detrimental effects for oral health (Locker et. al., 1996). For these reasons, it is essential that dental practitioners provide exceptional care and bedside manner to patients that experience dental anxiety in order to ease fear and worry in order to reassure patients (Corah, 1988).

It was apparent that dental anxiety was a learned behavior, mostly, with respect to prior experiences of visiting a dental professional. Further research on the topic of dental anxiety should be explored in order to confirm this finding. Understanding the behavior related to visiting a dental professional despite dental anxiety is crucial to improving perceptions towards dental care.

Additionally, good aesthetics was commonly referred to as a definition of what good oral health meant to participants. This perception of having aesthetically good oral health served as a definition of participants' personality, self-confidence, employability, as well as their overall appearance.

Quality of services as a factor influencing the decision to come to HEALing Community Center served as an essential socio-contextual factor that participants mentioned in their decision to seek dental care. Due to the excellence in the service

provided by staff and physicians, patients were more likely to return to receive services at HEALing Community Center, because they felt that it was not just about finances at the clinic, but being a part of something more; a family. This finding can contribute heavily to further research involving quality of care of given by FQHCs and how this can influence and motivate care seeking for low-income populations.

Friends and family influence as a means of education about oral health can be associated with the TPB construct of subjective norms and how this can lead to behavior. The influences of family and friends either motivated or discouraged participants from taking behavioral action. This finding can imply the importance of friends and family on dental health, and overall health. Further research would have to conducted in order to confirm this finding.

The TPB constructs, attitudes, subjective norms, and beliefs were able to demonstrate the intention to behave in the manner to seek dental care. Constructs were able to be applied to specific aspects of this study in order to contribute to the understanding of health-seeking behavior amongst a low-income status community of participants.

Through this study, it is clear that there is much that can be done in the field of dental public health to decrease oral health disparities, through the active involvement of dental professionals in decreasing the stigma and fear associated with visiting a dentist thus encouraging individuals to seek care, providing quality care and affordable options to prevent further health complications, and lastly providing proper education of oral health and hygiene to communities that may not otherwise have access to services.

# V. Public Health Implications

# **Public Health Implications**

This study strives to demonstrate the socio-contextual factors and motivators of low-income women at a FQHC that can be used to inform the future practice of public health dentistry. The development of FQHC has been an important establishment in the practices of dentists who practice dental public health. These health facilities provide affordable dental health care to an abundance of uninsured, underinsured, and/or low-income individuals. For this reason, FQHC's are an essential establishment in the practice of dental public health.

For the future practice of public health dentistry, proper health education is essential in communities that do not have access to affordable dental health services, whether in the form of educational programs in schools, patient-provider education, wellness courses, etc. Understanding the importance of dental health on overall health has implications to prevent diseases and cancers. For these reasons, education remains the first and foremost method to increase awareness and stress the importance of dental public health.

Furthermore, with an increase in oral diseases and the connection with the body, furthering dental health research is crucial in understanding and educating the public of the precautionary steps to take in order to protect their oral and overall health. With an increase in dental research, individuals can alter their health behavior in order to protect their health.

#### Public Health Recommendations

This study serves as a baseline study to determine socio-contextual factors and motivators, supported by TPB, that influence low-income women to seek dental health care at a FQHC. Additionally, this research can be applicable to quality improvement practices of FQHCs. As a highly neglected public health issue, oral health serves as the window to overall health and it is essential to take preventative care to the next level. For these reasons, access to quality and affordable dental care is a necessity to provide resources for individuals of low-income status to receive the level of care they deserve.

Furthermore, this study allows for the growth and public health education of dental practitioners. The qualitative aspect of this study informs motivators for individuals to seek health care. Therefore, with regards to the future practice of FQHCs, it is essential to emphasize a focus on provider-patient interaction in order to relieve dental anxiety, establish trust, and encourage positive health seeking behavior with relation to oral health. Additionally, educating about the importance of oral health from a young age will allow establish positive health practices in youth and these youth are able to educate their families and future generations of the importance of oral health care.

From an FQHC standpoint, due to the lack of knowledge in the population of these facilities, further community involvement and program establishments will allow for targeted individuals of low-income status to access dental care. Not only will this allow for the establishment of dental home for individuals, but also allow all individuals the access to health care that they have the right to. Finally, due the governmental funding for FQHCs, most facilities have to attract outside grants to support program development. For this reason, an emphasis should be established on advocacy for

individuals who need dental health care, but are not able to afford it. This can include partnerships with insurance companies, and devising affordable dental plans for individuals who are not able to afford dental insurance. Additionally, business and public health strategists should come together to establish finances and leadership within these organizations.

#### Limitations

Although this study was conducted in a very structured manner, certain limitations were present that could have affected interpretation of the study findings. Methodologically, this study utilized convenience and purposive sampling method. For this reason, participants were recruited based on who was at the clinic for their appointment. In other words, a more selective sampling method would have allowed for richer, thicker description. Despite the fact that data saturation was reached for this study, demographic information collected was limited to age and insurance status. The addition of education level and ethnicity would have contributed further depth and context of the sample. Additionally, social desirability bias could have informed answers that participants gave in response to interview questions. Finally, with the dialects and accents that were present in the study population, transcriptionists were not able to deduce all words spoken. Therefore, this could have resulted in some data loss.

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# **Appendices A: Eligibility Survey**

Thank you for your interest in participating in this study!

Before you take part in this study, please take a few minutes to take this pre-enrollment survey in order to determine eligibility.

Your answers to these questions will be kept confidential. Please remember that answering all the questions does not guarantee participation in this study.

If you have any questions, please feel free to let the Principal Investigator (Yasmin Kashfipour) know.

Thank you for your time and participation!

# -Project HEALTHY MOUTH Research Team



| Name   |  |
|--------|--|
| Age: _ | Gender: M or F (Circle one)  |
| 1.     | Is this your first visit to HEALing Community Center? Yes or No (Circle One)   |
| 2.     | Do you currently use other services at HEALing Community Center? Yes or No (Circle one)  |
| 3.     | If not, where do you currently receive services?   |
| 4.     | Do you have insurance? Yes or No (Circle One)  |
| 5.     | What type, if yes? (Circle One)  a. Private insurance carrier  b. Medicaid  c. Medicare  d. Uninsured  e. Two or more of above responses   |
| 6.     | How much do you pay for each visit here?   |
| 7.     | How much did you pay today?  |
| 8.     | How much do you feel you know about your oral health?  a. I know a lot about my oral health b. I know alittle about my oral health c. I do not know a lot about my oral health d. I don't know anything about my oral health |
| 9.     | Are you willing to learn more about oral health care? Yes or No (Circle One)   |

# **Appendices B: Interview Guide**

# **Interview Guide**

*Research Question:* What are the perceptions of dental health of low-income women seeking dental care at the HEALing Community Center?

## Sub-Questions:

- 1. How do women living in low-income neighborhoods perceive the importance of dental health?
- 2. What are women's motivations for visiting HEALing Community Center for dental care, specifically?
- 3. What socio-contextual factors play into the decision to seek dental health care at HEALing Community Center?

*Purpose:* The purpose of this qualitative study is to understand how women who seek dental health at the HEALing Community Center, perceive dental care. At this stage in the research, "perceptions of dental health" can be defined as "attitudes toward seeking dental care".

#### General Ideas

- Why HEAL?
- What does HEAL give these individuals that other dental clinics do not?
- How has HEALing Community Center changed their dental journey?

#### **Domains**

- Personal/Communal Oral Health Concerns
- Services individuals seek
- Motivations for seeing/not seeing the dentist
- What have you learned about oral health?

# **BOLDED QUESTIONS- Mandatory Questions for Interview to answer research question, others may be asked depending if time permits!**

# **Demographics**

- 1. Tell me about yourself.
  - a. Where do you live?
  - b. What do you do to make money?
  - c. How do you pay for your dental visits to HEAL?
    - i. Insurance?
    - ii. Out of Pocket Pay?
- 2. If pay using insurance: What types of dental procedures does your insurance cover?
- 3. If pay using no insurance (self-pay): What has hindered you from receiving health/dental coverage?

#### Personal Oral Health Concerns

- 4. How often do you brush your teeth?
  - a. How often do you floss your teeth?
- 5. Do your teeth ever bother you?
  - a. Can you tell me more about when or how they bother you?
  - b. And what you do when they bother you?
- 6. What do you think about the importance of oral health? (addresses construct of attitude)
  - a. On a scale of 1-10, how important do you think oral health is compared to the rest of your body?
  - b. In your own words, what do you think it means to have a healthy mouth?
- 7. How important do you think brushing your teeth is? (addresses construct of attitude)
  - a. How do you feel about brushing your teeth?
- 8. Tell me about your first experience seeing a dentist
  - a. How old were you?
  - b. What went well?
  - c. What part didn't you like? (or in other language)
- 9. When was the last time you saw a dentist?
  - a. If yes: Were you seen at the HEALing Community Center?
    - i. How was that experience?
  - b. If no: where did you go? Why?
  - c. How was that experience? (probe for positive AND negative: what was good? What was bad about it?)
  - d. What was your reaction going to the dentist? Leaving the dentist?
  - e. How did you pay for it?
- 10. Tell me about your favorite dental experience?
- 11. Tell me about your least favorite dental experience?
- 12. How do you feel about the time you dedicate to taking care of your teeth? (brushing, flossing, seeing a dentist, etc.)

- a. How do you feel about the resources available to you in order to take care of your oral health/teeth?
- b. How does that make you feel when you know you have taken care of your teeth?
- 13. Are there additional resources you wish you had to help you taken even better care of your oral health?

#### Services Individuals Seek

- 14. How did you hear about the HEALing Community Center?
- 15. What are some services that you receive at HEAL?
  - a. How often do you come for a check-up/cleaning?
- 16. What is it about the HEALing Clinic that makes you come here for services?
  - a. Distance? Cost? Experience?

What would make it easier to take care of your teeth? Your mouth?

## Motivations for Seeking Dentist/Dental Care

- 17. Since you have been a patient here, what are some factors or experiences that you have had, that you've liked?
  - a. Didn't like?
- 18. What are some of your friends and family members oral health habits? (addresses subjective norms)
  - a. How do their dental care habits motivate/discourage you to take care of your teeth? (addresses subjective norms)
  - b. Do they do things? (have practices) that you would do? If so, what are they?
- 19. How has HEAL shaped the way you take care of your teeth?

# **Closing Questions**

- 20. Based on your experiences here at HEAL, how do you intend to seek care here; more regularly, or coming in for a problem? (Addresses construct of intention)
- 21. What advice would you give to someone coming to HEALing Community Center for the first time?
  - a. If someone asked you why you come to HEAL or what comes keep you coming back? What would you tell them?
- 22. What recommendations do you have for HEALing Community Center to improve their service to you?
  - a. Either to make it more accessible?
  - b. Service-wise?
- 23. If you could give your younger self or a child advice, what would you tell yourself to do differently (if anything) about how you take care of your mouth? [oral health needs]

What else would you like to share with me today, that we did not cover that you would like to discuss today?

Do you have any other questions?

Thank you...

# **Appendices C: Codebook**

| Code<br># | Code                       | Subcode/<br>In-Vivo | Definition  | Inclusion/Exclusion Criteria  |
|-----------|----------------------------|---------------------|---|---|
| 1         | Awareness of<br>HEAL       |                     | Knowledge of<br>the existence of<br>HEALing<br>Community<br>Health Center                               | Exclude 1a and 1b Include when the following is mentioned: overall knowledge of existence of HEAL   |
| 1a        | Awareness of<br>HEAL       | Distance            | The remoteness or closeness of the HEALing Community Center in relation to place of residence           | Include when the following is mentioned: closeness of HEAL to thei place of residence, place of work, family and friends  |
| 1b        | Awareness of<br>HEAL       | Referral            | The process in which patients are informed of HEAL (either through doctor, family member, etc.)         | Include when the following is mentioned: Medical professional, family member, friend had made recommendation to visit HEAL  |
| 2         | Brushing Habits            |                     | How often one uses a toothbrush to clean their teeth and what times of the day they carry out this task | Include when the respondent gives a general description of brushing habits, including the time of day and the number of times.  Include when participant describes awareness of how often and how well they clean their teeth  Include how respondent feels towards brushing their teeth  Exclude 2i,3,3i |
| 3         | Lack of Brushing<br>Habits |                     | How often one does not use a toothbrush to clean their teeth  | Exclude 3i Include when participant discusses no brushing teeth routinely Include how respondent feels towards not brushing their teeth   |
| 3a        | Lack of Brushing<br>Habits | Laziness            | How much effort that one puts into taking care of their oral hygiene,                                   | <b>Include</b> when participant discusses no putting in the effort or taking the time to brush their teeth.   |

|    |                                |                              | specifically brushing   | Include lack of effort whether student is/is not knowledgeable of effects of not brushing teeth   |
|----|--------------------------------|------------------------------|---|---|
| 4  | Flossing Habits                |                              | How often one uses floss in order to clean their teeth and what times of the day they carry out this task | Include when the respondent gives a general description of flossing habits, including the time of day and the number of times   |
| 5  | Lack of Flossing<br>Habits     |                              | How much effort that one puts into flossing their teeth.  | <b>Include</b> when participant discusses no flossing teeth routinely.  |
| 6  | Education about<br>Oral Health |                              | How participants were taught or learned about oral hygiene and taking care of oral health                 | Include conversations about people close to participants that taught them how to take care of their oral cavity; including family members, school, dentist, etc.  |
| 6a | Education about<br>Oral Health | Friends and Family Influence | How participants friends and family helps them make decisions about their own oral health                 | Include when participant discusses friends and family's oral health habits and how it relates to theirs; either as a motivator or discourages them.  Include when patterns such as smokin arise with respect to friends and family as an influencing factor |
| 7  | Tooth and Mouth<br>Pain        |                              | Any discomfort experienced in the oral cavity   | Include the feelings of dealing with oral cavity pain Exclude 7a,7b   |
| 7a | Tooth and Mouth<br>Pain        | Coping with Pain             | Methods of<br>dealing with<br>discomfort<br>experienced in<br>the oral cavity                             | Include when the respondent discusse seeing a doctor and having medicine prescribed, or any method they utilize to deal with pain.  |
| 7b | Tooth and Mouth<br>Pain        | At-home remedies             | Utilization of over the counter products and drugs in order to cure mouth or tooth pain.                  | <b>Include</b> when the respondent discusse mixing or using products with brushin or flossing or over the counter drugs for pain management.  |

| 8  | Perceptions of   |                | One's            | <b>Include</b> general impressions or views  |
|----|------------------|----------------|------------------|--|
|    | Dentist          |                | impressions of   | on visiting a dentist                        |
|    |                  |                | visiting a       | Exclude 8a and 8b                            |
|    |                  |                | medical          |  |
|    |                  |                | professional     |  |
| 8a | Perceptions of   | Past history   | Utilizing        | <b>Include</b> when the respondent describe  |
|    | Dentist          |                | experiences to   | past experiences of seeing a dentist         |
|    |                  |                | judge present    |  |
|    |                  |                | experiences      |  |
| 8b | Perceptions of   | Dental Anxiety | Fear in seeing a | <b>Include</b> when the respondent discusse  |
|    | Dentist          |                | dental           | fear, nerves, etc. in seeing a dentist,      |
|    |                  |                | professional due | dental procedures, or dental utensils        |
|    |                  |                | to past/bad      | (i.e. drills and its sound)                  |
|    |                  |                | experiences      |  |
|    |                  |                | 1                | <b>Include</b> when respondent discusses     |
|    |                  |                |                  | lack thereof as well.                        |
| 9  | Good Oral        |                | How one          | Exclude 9a,9b,9c Use codes to                |
|    | Health           |                | interprets their | describe the overall hygiene practices       |
|    |                  |                | hygiene and      | that promotes healthy teeth                  |
|    |                  |                | practices that   | <b>Include</b> when the following is         |
|    |                  |                | leads to health  | mentioned: general overview of how           |
|    |                  |                | of the overall   | one views oral hygiene.                      |
|    |                  |                | health of their  | garage and any garage                        |
|    |                  |                | oral cavity      |  |
| 9a | Good Oral        | Aesthetic      | Aspects of       | <b>Include</b> when the following is         |
|    | Health           |                | physical         | mentioned: white teeth, beauty,              |
|    |                  |                | appearance or    | cosmetics of teeth, appearance, or           |
|    |                  |                | qualities that   | smile, straight teeth                        |
|    |                  |                | illustrate one's |  |
|    |                  |                | perception of    |  |
|    |                  |                | the importance   |  |
|    |                  |                | of their oral    |  |
|    |                  |                | health.          |  |
| 9b | Good Oral        | Body Health    | Overall well-    | <b>Include</b> when the following is         |
|    | Health           |                | being and how    | mentioned: body, physical health,            |
|    |                  |                | this relates to  | smoking, or body function.                   |
|    |                  |                | one's mouth      | S, 1 11 U J 11 11 1                          |
| 9c | Good Oral        | Healthy Mouth  | How one          | <b>Include</b> when aspects of the mouth are |
|    | Health           | 1.1            | defines the      | mentioned such as: health of teeth,          |
|    |                  |                | hygiene          | hygiene, big smile, smell of breath          |
|    |                  |                | condition of     |  |
|    |                  |                | teeth and gums   |  |
| 10 | Factors          |                | Qualities that   | <b>Exclude 10a,10b,10c,10d,10e.</b> Use      |
| 10 | influencing      |                | allow for one to | codes to describe the qualities to allow     |
|    | decision to come |                | be a regular     | one to be a more frequent visitor to         |
|    |                  |                | oc a regular     |  |
|    | to HEAL          |                | be a regular     | HEAL   |

|     |   |                     | patient of<br>HEAL  |  |
|-----|---|---------------------|---|--|
| 10a | Factors influencing decision to come to HEAL          | Transportation      | How walking,<br>driving, etc.<br>play a role in<br>being a patient<br>at HEAL   | Include when the following is mentioned: MARTA, driving when procedures are done   |
| 10b | Factors<br>influencing<br>decision to come<br>to HEAL | Insurance           | How one's payment status/financial assistance play a role in being a patient at HEAL                                      | Include when the following is mentioned: sliding scale, insurance status, Medicaid, Medicare, disability status Include when lack thereof is also discussed.                         |
| 10c | Factors<br>influencing<br>decision to come<br>to HEAL | Convenience         | How location<br>and flexibility<br>of services<br>plays a role in<br>being a patient<br>at HEAL                           | Include when the following is mentioned: location to proximity of place of residence, closeness to work/home, community health center  |
| 10d | Factors influencing decision to come to HEAL          | Recommendation      | How word of mouth or suggestion from a medical professional or family member plays a role in being a patient at HEAL      | Include when the respondent describes: medical professional, family member, friend, giving great review about HEAL Include giving positive reviews                                   |
| 10e | Factors influencing decision to come to HEAL          | Quality of Services | How the excellence of care and the abundance of different types of care providers plays a role in being a patient at HEAL | Include when the respondent describes: how the assistants take care of the patient and put them at ease, ho one can get the same level of care anywhere, and receiving the best care |
| 10f | Factors influencing decision to come to HEAL          | Affordability       | How the cost of<br>care plays a role<br>in being a<br>patient at<br>HEAL  | Include when the participant discusses cost with relation to the HEAL clinic; include when talking about sliding scale or their income and how HEAL accommodates to them             |

| 11  | General Cost of<br>Dental Work |   | The price of seeking dental care  | Include when the participant discusses price of dental work in relation to general terms; seeking care elsewhere, cost of extractions, root canals, etc.                        |
|-----|--------------------------------|---|---|---|
| 12  | HEAL<br>Recommendation         |   | Further advice<br>to promote<br>HEAL and its<br>services to the<br>community                                  | Exclude 12a,12b,12c. Use codes to describe how to give further advice to HEAL based on participants' feedback Include when the following is mentioned: general feedback for HEA |
| 12a | HEAL<br>Recommendation         | Accessibility                           | How easily one can attain services at HEAL  | Include when the respondent describe the convenience and variety of service that allow for care to be easily attainable   |
| 12b | HEAL<br>Recommendation         | Advertising                             | How signage<br>and promotion<br>play a role in<br>patient visits to<br>HEAL                                   | Include when the respondent discusse the different levels that promotional access can be made available to community  |
| 12c | HEAL<br>Recommendation         | Extending<br>Services                   | Addition of more specialized care to target more patient needs  | Include when the respondent discusse adding more specialized care to HEAI so more patients would be able to be patients of this community.                                      |
| 12d | HEAL<br>Recommendation         | Spreading<br>Awareness and<br>Education | Making community and its members more involved and teaching about the impact of oral health on overall health | Include when participant discusses adding more education and including community members.   |
| 12e | HEAL<br>Recommendation         | Advice to future pts.                   | Guidance given<br>to patients who<br>have not been<br>seen at<br>HEALing<br>Community Ctr.                    | Include when participant discusses what they would say to patients comin to HEALing Community Center for th first time.   |

| 13   | Lessons Learned |                   | Looking back at   | Exclude 13i,13ii,13iii                              |
|------|-----------------|-------------------|-------------------|---|
|      |                 |                   | past behavior     | Use codes to describe what knowledge                |
|      |                 |                   | and altering      | respondents have gained through their               |
|      |                 |                   | negative          | dental journey, whether at HEAL or in               |
|      |                 |                   | consequences of   | general   |
|      |                 |                   | oral health.      | <b>Include</b> when the following is                |
|      |                 |                   | Furthermore,      | mentioned: utilizing past experiences               |
|      |                 |                   | how education     | move forward with healthy oral cavity               |
|      |                 |                   | about oral        | <b>Include</b> sharing experiences of oral          |
|      |                 |                   | health can lead   | health, knowledge, based on what                    |
|      |                 |                   | to positive       | participant has learned                             |
|      |                 |                   | outcomes for      |   |
|      |                 |                   | the future.       |   |
| 13a  | Lessons Learned | Willingness to    | Excitement with   | <b>Include</b> when the respondent mention          |
|      |                 | share experience  | satisfaction of   | sharing her satisfaction of services at             |
|      |                 |                   | services and      | HEAL with friends, family, and                      |
| 4.01 | · · ·           |                   | care received     | community.  |
| 13b  | Lessons Learned | Staying away from | Realization of    | <b>Include</b> when the respondent mention          |
|      |                 | certain foods     | eating habits     | chewing habits, healthy eating habits,              |
|      |                 |                   | that could lead   | and staying away from hard or harmfu                |
|      |                 |                   | to poor oral      | foods that could cause dental problems              |
| 10   | T T 1           | A.1 C             | health            | X 1 1 1 1 C 11 : :                                  |
| 13c  | Lessons Learned | Alteration of     | Realization of    | Include when the following is                       |
|      |                 | habits            | past oral         | mentioned: I would change this, I                   |
|      |                 |                   | hygiene habits    | would do this differently, changing or              |
|      |                 |                   |                   | habits, how they would change habits moving forward |
| 14   | Other services  |                   | Any specialized   | Include when participants mention an                |
| 14   | received        |                   | care besides      | additional services that they utilize at            |
|      | received        |                   | dental care that  | HEAL, specifically (including OB,                   |
|      |                 |                   | one receives at   | PCP, Behavioral, etc.)                              |
|      |                 |                   | HEALing           | Ter, Benavioral, etc.)                              |
|      |                 |                   | Community Ctr.    |   |
| 15   | Additional      |                   | Any asset or      | <b>Include</b> when participant mentions an         |
| 10   | resources       |                   | necessity that    | additional want that they would desire              |
|      |                 |                   | one desires to    | to have in reference to their dental                |
|      |                 |                   | obtain in         | care/oral health.                                   |
|      |                 |                   | reference to      |   |
|      |                 |                   | their dental/oral | <b>Include</b> when participant mentions no         |
|      |                 |                   | health            | needing resources as well.                          |
| N/A  | Good quotes     |                   |                   | <b>Include</b> any good quotes for any of th        |
|      | •               |                   |                   | codes that may be used later for                    |
|      |                 |                   |                   | analysis.   |