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Perception of Breast Cancer Screening Among African Immigrant Women in Dallas.

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Abstract

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Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
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Abstract

Breast cancer is the leading cause of cancer-related deaths in women, and mammography is proven to detect breast cancer at its earliest stage; however, studies show that Black women have the lowest rate of breast cancer screening. The purpose of this descriptive, qualitative study was to explore the perceptions of African-born immigrant women about breast cancer screening. Data were collected by conducting individual interviews with 10 purposefully selected, African, immigrant women in Dallas, between 35 to 65 years old. Data were analyzed using NVivo software and coded based on the conceptual framework, which was the health belief model. Participants' perception of their vulnerability to breast cancer and the barriers to screening were the main themes found. Most of the participants did not perceive that they are at risk for the disease because of family history and limited knowledge of the disease. Barriers related to screening were financial constraints, fear of the unknown, and the pain and discomfort of the screening process. However, receiving reminders and knowing people in the community who suffered with the disease were incentives to seek more information and to get screened. Based on the findings from this study, breast cancer awareness materials should be added to other health awareness materials that are distributed in the community. Additionally, future studies may be conducted on the education level and financial classifications of the participants. Implications for social change was identified in the areas of limited knowledge about the disease, and participation rate in the breast cancer screening practices. Education that communicates the disease facts and risks is paramount.

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Dedication

This dissertation is dedicated to my children: Stephanie Ogechi Anuwe, Jeffrey Chukwuma O. Anuwe, Estelle Chiwendu Anuwe and Antonette Tochi Anuwe. The sky is not your limit, your success has no limits if you set realistic goals for yourselves. Much love mom.

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I give glory and praise to almighty God for his faithfulness in my life. I thank God for keeping me healthy and focused through this journey. To my husband Nze Ikechukwu C. Anuwe and my children, I say thank you for believing in me, and encouraging my dreams and aspirations. I am also very grateful to my sisters; Dr Francisca Mbanaja Opara and Dr Salome Mbanaja MD, who inspired and supported me in various ways during this journey. To my brother Arch. Anthony Phil-Mbanaja, I am grateful for your support those times when I needed access to internet service in the village. To my mother, Chief /Lady Anthonia Adaku Mbanaja, I thank you for instilling the values of love of God, education and self-discipline in me.

Embarking on and completing this dissertation was the toughest challenge yet in my academic life. I cannot express enough gratitude for the support and help from my chair, Dr Nazarene Tubman who provided endless resources and was very timely with her feedbacks, Dr Sheryl Richard, my dissertation committee member who was very supportive and provided knowledgeable comments in her reviews, and Dr Donna Clews, my URR member. I couldn’t have done it without you. Thank you. Finally, to my late Dad, chief, Sir Philip C. Mbanaja, you will always be my hero and I know you are watching from heaven. I hope I made you proud

It is my wish to individually thank everyone who made an impact on my completing this journey, for those I did not mention their names, it is not an oversight, I appreciate all who cheered me on and reminded me to persist to the finish line. To all, I say thank you.

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Chapter 1: Introduction to the Study

Breast cancer is one of the leading causes of death in women; however, studies show that Black women, especially African-born women, underutilize the services for breast cancer screening (Ndikum-Moffor, Faseru, Filip, Wei, & Engeiman, 2015). But little is known about this population of women and their experiences with breast cancer screening, leaving a gap in understanding the determinants of health behaviors among them. Few studies have addressed the issues of Black women's health (Sheppard, Hurtado-de-Mendoza, Song, Hirpa, & Nwabukwu, 2015), and a review of the literature showed that none have addressed the health issues of African-born women in Dallas, African-born women make up 20% of the entire immigrant population in the United States (U.S. Census Bureau, 2016). Additionally, though there is no clear number for this population in Dallas, there is a significant ratio of women and men of African origin in this area (U.S. Census Bureau, 2016).

Researchers have considered culture, beliefs, and attitudes as possible factors impeding the utilization of health screenings, such as breast cancer screening, but no one has explored the African immigrant women's knowledge of the disease; experiences with the screening process; or access to screening in relation to culture, beliefs, and practices (Ndikum-Moffor et al, 2015). Additionally, researchers have suggested that few support services exist for this population due to their lack of knowledge of resources and their income level that may not qualify them for social services (Pinder, Nelson, Eckardt, & Goodman, 2016). In this chapter, I provide the problem statement and the background of the study, in which the issues that affect African-born women are discussed in detail. The theoretical foundations of this study, which guided my understanding of the perceptions of African-born women, are discussed later in this chapter and in Chapter 3.

Background of the Problem

To examine the health disparity in breast cancer screening, it is important to explain the breast tissue (see Figure 1). One of the common forms of breast cancer affects the duct, which is the path through which milk from the breast flows to the nipple; and the lobes, which are the parts that make the milk (ACS,2015). According to the American Cancer Society (ACS; 2015), various types of breast cancer present as lumps in the breast but not in all cases. Furthermore, most forms of breast cancer can be detected during mammography screening in the early stages before the lumps can be felt (ACS, 2015). Because most women with breast cancer have no symptoms, regular screening is recommended (ACS, 2015). Some of the screening tools are mammograms, breast ultrasounds, breast MRI scans, and newer experimental breast imaging tests (ACS, 2015). With the results of the imaging tests, a biopsy is performed to confirm the results from the imaging (ACS, 2015). Screening is defined as tests and exams used to find diseases in people without symptoms of the disease (ACS, 2015). Furthermore, early detection is finding and diagnosing the disease before the individual starts to develop signs and symptoms of the disease (ACS, 2015).

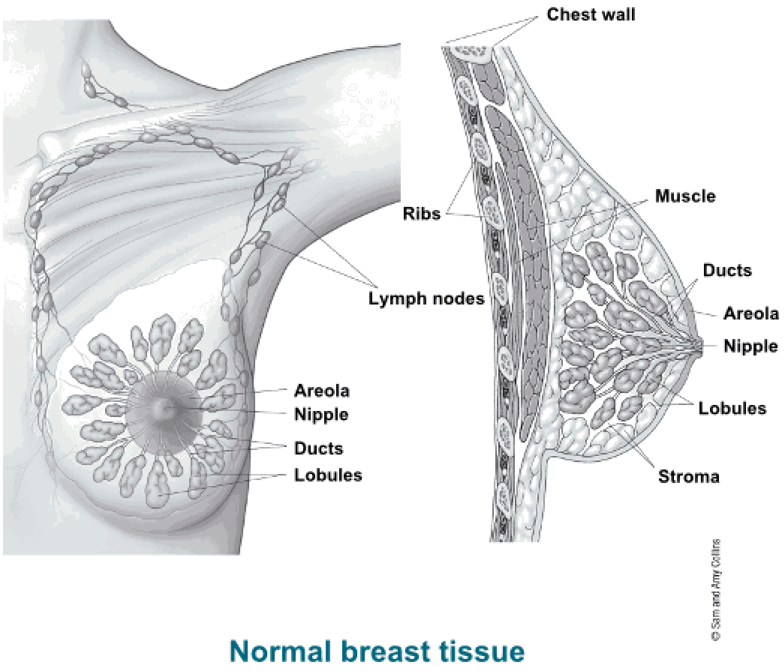

Figure 1. Normal breast tissue. Any of the labeled areas can be affected by breast cancer. From (https://www.cancer.org/cancer/breast-cancer/about/what-is-breast-cancer-complete.pdf.)

Breast cancer diagnosis and prognosis in Black women have poor outcomes, and breast cancer is the second leading cause of death among this population (Marshall & Archibald, 2016). According to the ACS (2015), Black women are also diagnosed with breast cancer at an earlier age than White women, and regardless of age, Black women have higher rates of triple-negative breast cancer (TNBC). Women with TNBC are more likely to experience recurrence of the disease, have poor prognoses, and are more likely to die from the disease (Marshall & Archibald, 2016). Women of African descent have twice the risk for TNBC due to their genetic predisposition of the breast cancer gene (BRCA1; Marshall & Archibald, 2016).

So far, early detection, through methods like screening, has been found to be the key to improving breast cancer survival rates; however, Black women use screening the least, and Black women of African origin rank lower on the scale of users of breast cancer screening services compared to Black women born in the United States (ACS, 2015). There are a significant number of women of African origin. The U.S. Census Bureau (2016) reported that there is a total of 1.6 million African-born immigrants in the United States, with a growth that doubled between 2012 and 2016. The population of African immigrants increased 250% in the United States from 2012 to 2014 (Kaplan, Ahmed, & Musah, 2015). Given the increasing number of African-born women in the United States, they impact the community in Dallas, and taking appropriate measures to improve the quality of life of these women is important for their families and the community.

African immigrant women’s reasons for not participating in breast cancer screening may be cultural differences, religious beliefs, and language barriers on their perception of health (Gondek et al, 2015). Language barriers and attitude to illness in general are contributing factors to the perception of African-born women toward health screening (Shipp, Francis, Fluegge, & Asfaw, 2014; Wafula & Snipes, 2014). Other researchers have explained that the reason for the disparity in breast cancer mortality rate for African-born women is beyond issues of socioeconomic status (Marshall & Archibald, 2016). To improve breast cancer awareness among African-born immigrant women, it is necessary to study their culture, religion, and health beliefs (Obi-Uche, 2014).

Studies involving African-born women have addressed mainly infectious diseases, whereas studies on chronic diseases have been focused on broader groups, such as Black women in general (Pinder et al., 2016). Additionally, there are disparities in cancer knowledge between the African immigrant population and other ethnic groups in the United States (Sheppard et al., 2015). Factors, such as early diagnosis, quality of care, continuity of care, and outcomes of diseases among people of African descent, may be related to barriers, such as access to care due to insurance factors, citizenship status, language barrier, culture, beliefs, and religion (Hurtado-de-Mendoza et al., 2014). However, there was a gap in knowledge regarding health behaviors of African-born women in Dallas, related to cancer screening. Therefore, in this study, I explored (a) the perceptions of African-born women in Dallas, on breast cancer screening and (b) the determinants of their breast cancer screening participation.

Statement of the Problem

African-born women are at high risk for breast cancer mortality due to multiple factors, which include their high risk for the BRCA1 mutation (Culcier et al., 2013). Though breast cancer is the leading cause of death in women across the globe (ACS, 2015), there is a significant increase in the mortality rate for African-born women diagnosed with the disease (Ogunsiji, Kwok, & Fan, 2017). Furthermore, breast cancer develops at an early age in African-born women but is diagnosed at a later stage, which may possibly affect the survival rate for breast cancer in this population (Ogunsiji, Wilkes, Peters, & Jackson, 2013). Additionally, the ACS recommends that women over age 40 years old should test for breast cancer every 3 years and recommends annual mammograms for those at risk due to family history (Consedine, Truck, Ragin, & Spencer, 2015). However, women of African descent are ranked least likely to participate in breast cancer screening (Consedine et al., 2015).

Considering the significant growth of 7,881 African-born women residents in Dallas, through migration from 2014 from 2014 (American Fact Finder, 2016), the issue of chronic diseases, such as breast cancer, is also a growing concern for this population. Health-related issues of the African immigrant population in the United States are not being addressed despite the continuing growth of this population, which may be affected by categorizing African-born women with all Black women (Pinder et al., 2016). A study that addresses the socioeconomic status and access to healthcare for Black women in the United States may not necessarily apply to African-born immigrant women who may not qualify for the benefits of social services, such as Medicare or Medicaid. Because African-born immigrant women are underrepresented in research, research is needed to address the reasons for the low participation of African-born women in breast cancer screening services and enhance the reduction of the disparity gap in the breast cancer survival rate. I conducted this study to address this need.

Research Questions

Research Question 1: What are the experiences of African-born women in Dallas, regarding breast cancer screening?

Research Question 2: What do African-born women in Dallas perceive as barriers to accessing breast cancer screening?

Purpose of the Study

I conducted this study to contribute to the knowledge of the perceptions of African-born immigrant women on breast cancer screening by exploring their knowledge of breast cancer and perceptions of breast cancer screening. The literature provides an understanding of the determinants of breast cancer screening participation among Black women in general; however, due to the lack of research involving African-born women on breast cancer screening, I interviewed African-born women to gain an understanding of their perceptions related to cancer screening. The method of investigation is provided in Chapter 3, and the interview questions are provided in Appendix A.

Theoretical Framework

The theoretical foundation for this study was the health belief model (HBM). Because this model addresses individuals' adoption of health behaviors based on their beliefs and the situation around them (Clemow, 2014), it was the most suitable for this study. The HBM was developed by Hochbaum in the 1950s to understand and predict health behaviors (Clemow, 2014). Furthermore, the application of the HBM offers guidance with the development of effective screening programs, which applied to the study population. The framework also helped me develop interview questions and establish criteria for the participant sample. The theoretical foundation is discussed in greater detail in Chapter 2.

Operational Definitions

African-born immigrant women: Women of African origin (Obi-Uche, 2014).

Breast cancer: Abnormal growths or changes in the human breast (CDC, 2015).

Breast cancer screening: The use of devices to detect abnormalities in the breast tissue (CDC, 2015).

Health beliefs and perception: Individuals' or a group of individuals' understanding of their health or bodily functions based on their culture or religion (Carpenter, 2010).

Assumptions, Limitations, Scope and Delimitations

Assumptions

A phenomenological descriptive inquiry does not provide numerical details like would be provided in quantitative studies that address the number of Black women participating in breast cancer screening. The findings from this study are based on interpretation rather than quantitative analysis, which involved assumptions that cannot be proven to be true. For instance, questions to participants were open ended, so I assumed that participants felt that they could answer willingly and to the best of their knowledge.

Limitations

One of the limitations was that women may have been reluctant to participate in this study because of their religion and beliefs. Additionally, the results may not be generalized to women of all social statuses of African descent. Level of education and social status may have also played a major role in the outcomes of this research, which are known to affect deviation from the norm of a society.

Scope and Delimitations

The participant pool was limited to 10 women participants. This study was also limited to women of African descent who had been in the United States for 5 or more years. Additionally, this study was limited to African-born women in Dallas, between the ages 35 and 65 years old. The time factor is a big concern for this population of women because most of them work long hours to support their families. I set interview times in consideration of this factor.

Significance of the Study

This study adds to an existing body of literature on African-born women's barriers to and experiences with breast cancer screening. Understanding the perceptions of African-born women in Dallas, on breast cancer screening may help to fill the gap in research. Little is known about the experiences of this population of women regarding their attitudes, beliefs, and access to breast cancer screening. The findings of this study can be used to further address the racial and ethnic gap in breast cancer screening and mortality rate for breast cancer in this population.

The results of this study may also provide insight toward developing support programs for women of African descent. The positive social change implications include knowledge that may be useful to program developers, educators, psychologists, healthcare providers, and other researchers who may be seeking directions and information to improve the outcome of breast cancer diagnosis in African-born, immigrant women. Women's health centers and outreach health centers are healthcare resources available for women, some of which provide discounted rates for their services, while others provide free screening for immigrants and low-income women. Both existing healthcare programs, and those aspiring to develop new programs can benefit from the findings of this study by using them to tailor services to meet the specific needs of this population.

Summary of Chapter 1

Disparities in breast cancer screening participation among African-born women in the United States is a growing concern because breast cancer is the second leading cause of cancer death for women in the United States (ACS, 2015). African immigrants have worse cancer outcomes when compared to non-Hispanic Whites, and Black women are ranked lowest in breast cancer screening participation (ACS, 2015). Some of the reasons for these disparities are culture, religion, and other beliefs; socioeconomic status; and language barriers (Obi-Uche, 2014).

Although African-born immigrants are one of the fastest growing immigrant populations in the United States, there remains limited research about the health of

African immigrants. The limited research that does exist has addressed infectious diseases, such as tuberculosis and HIV, rather than chronic diseases, such as cancer. Furthermore, the few instances of research that have included African-born immigrants constituted a small percentage of the sample, and they were grouped with African Americans or Caribbean immigrants (Consedine et al., 2015). Therefore, I explored the perceptions of African-born immigrant women on breast cancer screening in this study. This chapter is followed by a review of the pertinent literature in Chapter 2.

Chapter 2: Review of the Literature

Introduction

African-born women are a significant part of the growing African immigrant population in the United States. Although breast cancer has been identified as the leading cause of death in women, second to heart disease or stroke (ACS, 2014), there are limited studies that address this disease in African-born women. Furthermore, African-born women are underrepresented in breast cancer research despite sharing certain risk factors for breast cancer with African American women; however, cancer screening programs for African-born women in the United States may not be effective if they are categorized with the screening programs for American-born, Black women (Ndukwe, Williams, & Sheppard, 2013). Differences in beliefs and practices due to age and language acculturation play a significant role in perceived health status among African-born women (Ndukwe et al, 2013). These factors are important to address because fewer Black women are taking the advantage of screening for early detection. Additionally, the mortality rate of Black women with breast cancer continues to increase, especially for foreign-born Black women (Ndukwe et al., 2013). Therefore, I conducted this study on the experiences and perceptions of African-born women in the United States and their breast cancer screening practices.

In this chapter, the search strategy is discussed prior to the review of literature obtained from the search. The literature review is focused on the knowledge, language barriers, culture, socioeconomic status, and beliefs that affect the breast cancer screening practices of African-born women. Because of the limited research that involves African-born women in Dallas, I gathered information from the wider scope of Black women in the United States and applied it to African-born women in Dallas. The chapter also brings to focus some of the factors that differentiate American-born, Black women from African-born, Black women. Finally, I highlight the experiences of Black women with breast cancer screening and discuss the reasons for their limited participation in breast cancer screening.

Research Strategy

I used several sources to locate the literature for this review. The databases used were ProQuest, CINAHL & MEDLINE combined search, and PsycINFO. The general search terms *breast cancer screening* and *African-born women* were used as the root of all inquiries. Along with these themes, I also employed the search terms used of *Black women*, *culture*, *beliefs*, *perception*, and *spirituality* to narrow the search. From articles found through these search strategies, I conducted a review of referenced authors to locate additional resources that were not discovered in the general search. The Walden University Online Library provided access to many of the needed articles for this review. Additionally, web searches of the U.S. Census Bureau, World Health Organization, National Center for Health and Statistics, and Dissertations@Walden University database provided additional resources to locate articles and information. I found no literature that directly referred to African-born women in Dallas or their breast cancer screening practices. Considering these limitations, the contents of this review are directed to the impact of culture, health belief, and spirituality on the breast cancer screening practices of African-born women.

Theoretical Foundation

For this study, I used the HBM to provide understanding of the health behaviors of African-born women related to breast cancer screening. The HBM was created in the 1950s by social psychologists in the U.S. public health services (Guilford, McKinley, & Turner, 2017), and it is applied by researchers to explore the health screening behaviors of participants and the related variables. The HBM suggests that individuals are likely to take certain action to prevent illness if they feel that they are likely to contract such illness, if the outcome of the illness is fatal, if they feel that they can benefit from taking positive actions, if the perceived actions are not overwhelming, if they have knowledge of what action to take, and are motivated (Gilford, Mckinley, & Turner, 2017). Additionally, the four P’s of the model (i.e., perceived susceptibility, perceived severity, perceived benefits, and perceived barriers) suggest that behaviors can be predicted by individuals’ perceptions of the variables (Carpenter, 2010). This conceptual model explains that individuals will act if they perceive that they are susceptible to a negative health outcome, if they can identify with the severity of the negative health outcome, if there are some benefits for such behavior, and if the barriers to adopting such behavior do not outweigh the benefits (Carpenter, 2010). Furthermore, there are external and internal factors that can make individuals act or change their behaviors, such as awareness programs and changes to the normal functions of the body or even self-efficacy (Carpenter, 2010).

Previous researchers and reviewers of the model have conducted research using the HBM to examine the relationship of its variables. For example, Guilford et al. (2017) used the HBM in their study to predict the breast self-exam practices of college-aged women. Furthermore, Carpenter (2010) conducted a meta-analysis that indicated that severity, barriers, and benefits were more likely to predict the expected behavior. Likewise, Shafer, Kaufhold, and Luo (2018) used the HBM to explore health behaviors among Asian Americans through a meta-analysis and found that benefits and low barriers to access actions were the most predictors of health behaviors. In the same study, Shafer et al. examined the health behaviors of Asian American women to address their lack of participation in screening and donating healthy breast tissue, finding that the high risk for breast cancer in this population was attributed to three factors: low perception of susceptibility to the disease, lack of knowledge, and cultural issues. Culture adherence, poor communication due to language barriers, and fear of cancer diagnosis and outcomes were also significant barriers for this group (Shafer et al, 2018).

The HBM has been used by researchers to predict health behaviors for breast cancer screening and is popular in studies that seek to predict behaviors. I chose to use the HBM model in this study due to its application in similar studies and to developing research questions that addressed the benefits of and barriers to breast cancer screening.

Therefore, the HBM was the most suitable theoretical framework to guide this study on African-born women and their perceived behaviors toward breast cancer screening.

Review of Literature

The World Health Organization (n.d.) noted 408,000 new cases of breast cancer among women in America in 2012. It is expected that this number will almost double by 2030 if the current trends continue (Pan American Health Organization, 2015). Because the cause of breast cancer is unknown, one of the main strategies for improved outcomes of the disease is early detection through screening and digital examination (Pan American Health Organization, 2015). The following literature review concerning breast cancer screening, diagnosis, and treatment provides insight into the experiences of African-born, Black women in the United States.

African-Born Women in the United States

Reports show a steady increase in the number of foreign-born, African people in the United States (U.S. Census Bureau, 2016). African-born immigrants are one of fastest growing immigrant populations in the United States (Hurtado-de-Mendoza et al., 2014), and there were approximately 1.6 million African-born immigrants living in the United States in 2012 (Pinder et al., 2016). According to the U.S. Census Bureau (2016), the numbers have doubled every decade for the past 40 years. This population consists of people from West Africa (36%), East Africa (29%), North Africa (17%), the south and middle of Africa (5%), and other parts of Africa (7%; Pinder et al., 2016). New York, California, Texas, and Maryland have been cited as the cities with the highest number of

African-born immigrants, with populations of over 100,000 each (Pinder et al, 2016). The Dallas metropolitan area has the largest population of African-born immigrants in Texas, with a population of 61,000, giving it the sixth largest population of this group in the United States (U.S. Census Bureau, 2016). Fifty percent of all African-born immigrants are women, with growing from a population of 393,510 to 761,677 between 2000 and 2010 (Ndikum-Moffor et al., 2015).

Though this population continues to increase in the United States, African-born immigrants are underrepresented in research concerning their health issues. Black women in the United States have fewer incidents of breast cancer compared to other ethnic groups, but they have the highest mortality rate when diagnosed with the disease; however, it is difficult to determine the contribution of the African-born women to this statistic (Ndikum-Moffor et al., 2015). It is expected that 1.28 million Africans will be diagnosed with new cases of cancer, with a resulting 970,000 cancer deaths by 2030 because of population growth and aging (ACS, 2019). Cervical and breast cancer are the leading cause of cancer deaths in Africa, which have been related to escalated incidents of HPV infection and cervical cancer reported in the eastern and western parts of Africa (Ndikum-Moffor et al, 2015). Therefore, understanding this population and their healthcare needs is important to narrowing the inequalities in health and disease outcomes.

A challenge in addressing health disparities regarding cancer is that the health issues of African-born women have been categorized along with those of all the Black women in the United States, disregarding the factors that might influence the perceptions and health practices of African-born women (Hurtado-de-Mendoza et al., 2014; Ndikum-Moffor et al., 2015). Women of African descent may differ from the U.S.-born women in their lifestyle and access to healthcare. Researchers have shown that only 20% of the study population acknowledged that they were at risk for breast cancer (Ndikun-Moffor et al, 2015). Most of the women (92.9%) agreed that breast cancer can be treated if diagnosed early, 72.4% strongly disagreed that breast cancer is a curse from God, and 53.5% strongly agreed that breast cancer can disappear with prayer interception (Ndikum-Moffor et al., 2015). Additionally, women of African descent had little or no exposure to breast health awareness or screening in their country of origin, which added to barriers for seeking healthcare-related jobs, medical expenses, language barriers, discrimination, and childcare (Ndikum-Moffor et al., 2015). Furthermore, lack of insurance coverage, immigration status, culture, language, and limited knowledge of the disease and the healthcare systems are some of the challenges identified with immigrants who are seeking healthcare (Hurtado-de-Mendoza et al., 2014).

Perception is another important factor in examining the health behaviors of African-born women. Francis, Griffith, and Leser (2014) explored Somali women's perceptions of healthcare and cancer prevention and found that factors, such as age, ethnicity, religion, socioeconomic status, gender, mental health disabilities, sexual orientation, and geographic location, may limit access to healthcare and healthcare resources. Furthermore, the cost of healthcare is a barrier to minority women, especially foreign-born women from Africa who are either underinsured or not insured due to the cost of health insurance (Francis et al., 2014). Other factors identified as social barriers were language, culture, religious beliefs, and literacy level because Somali individuals tend to have a low literacy rate and are unable to communicate fluently in English, and they are more likely to seek local herbal remedies and religious intervention for their ill health (Francis et al., 2014). Furthermore, Somali women perceived health as a state of physical, mental, and emotional well-being as well as being free from disease by being proactive with self-care, confiding in families and friends about health behavior, and seeing a provider for serious conditions like obesity and cancer (Francis et al., 2014). Of the 12 participants, eight had some form of cancer screening in the past month to 4 years, and most of them received breast cancer screening (Francis et al., 2014).

Based on research like Francis et al.'s (2014) study, health awareness is one way to let African-born women know that they have choices and that it is not always the will of God that they should die from preventable diseases. Role models and open conversation in community gatherings can provide health information, such as oral and visual dissemination at mosques in communities where there is a majority of Muslim women such as the Somali community (Francis et al., 2014). To impact the health of these women, it is important that healthcare providers understand that the culture and religion of the community plays an important role in how they perceive health and how they can be proactive with health issues.

Breast Cancer Screening Among African-Born Women

Migrant women are less likely to have received screening for cervical or breast cancer in the past 10 years when compared to other ethnic groups (Ndukwe et al., 2013). Thus, it is important to explore the variations in the cancer screening habits of African American women and women of African descent. For example, age and language acculturation have a significant effect on the perceptions and practices of health-seeking behaviors and beliefs of African-born women in addition to culture, spirituality, and family influences (Ndukwe et al., 2013). For instance, beliefs that cancer is a curse and faith in prayer is the only way out are a reason to avoid screening. Age, education, and insurance status are also determinants of where and how women seek healthcare and health information. Some African-born women are also not comfortable with the process of breast and cervical cancer screenings because of fear of pain, and some are forbidden by their spouses to engage in the process because of cultural or religious practices. Additionally, there is some stigma attached to the diagnosis of certain illness in a family, and it is believed to affect the future generation of women. However, outreach programs can address the fears, culture, and beliefs of this population. Additionally, education materials in African language can encourage adherence to treatment for those diagnosed with the disease. Involving church leaders in the education process can also help eliminate the belief that faith by itself is the answer to avoiding illness (Ndukwe et al., 2013).

Other research has supported the different factors that affect African-born women’s low participation in cancer screening. For example, Harcourt et al. (2014) suggested that the factors associated with breast and cervical cancer screening behavior among African immigrant women in Minnesota included language, culture, religion, and length of time in the United States. The study findings showed low rates of screening participation among African-born Black women, especially those who had been in the United States for a shorter number of years. Additionally, Sheppard et al. (2015) indicated that factors such as language, socioeconomic status, access to healthcare, immigration status, and religious beliefs were significant determinants for participation in breast cancer screening services. Further, marital status was a factor, as married women or those living with life-time partners were more likely to use breast cancer screening services (Sheppard et al., 2015).

Family health history is also an important part of the breast cancer screening process. Ricks-Santi et al. (2016) identified nationality, race, ethnicity, age, gender, marital status, and level of education as determinants of self-reporting of history of breast cancer in the family. Additionally, women tend to report maternal health history more than paternal health history, and married women are less likely to report family history of breast cancer. Further, women born in the United States are more likely to report family history of breast cancer than immigrant women from Central America and Africa (Ricks-Santi et al., 2016). Though African-born women have low rate of family history of breast cancer, culture, beliefs, language barriers, and socioeconomic status affect their ability to publicly identify with family members with a history of breast cancer. Additionally, cancer diagnosis has a negative connotation among African immigrants, so it may be a secret kept from some family members and the community (Ricks-Santi et al., 2016). Though the results of this study were not conclusive, reporting family history of the disease remains an essential component of the breast cancer screening process and will enable early diagnosis, prevention, and effective treatment of the disease.

Further research has shown individual factors that include emotional, physical, and health behaviors and system level factors that involve socioeconomic status and environmental factors as affecting health seeking behaviors of immigrant women. For example, Asian-American women have unmet needs with post cancer diagnosis and treatment, and socioeconomic status, cultural health beliefs, immigration status, acculturation level, understanding of English language, social support, and spirituality are barriers to health care. Additionally, disparities in cancer experiences with most foreign-born women are due to limited research that involved the groups, socioeconomic status, communication limitations, and sociocultural differences (Wen, Fang, & Ma, 2014).

Summary of Chapter 2

Despite the significance of the population growth in immigrants from Africa (U.S. Census Bureau, 2012), research that addresses their health issues is lacking. The literature supports the need for future study in breast cancer awareness to include all nationalities and ethnicities. African-born women in the United States are among the ethnic groups that are underrepresented in research in various ways. Cultural differences, language barriers, differences in spirituality, and socioeconomic status are some of the factors that separate the experiences and behaviors of African-born Black women from those of American-born Black women. Although African-born women are more likely to be diagnosed with late-stage breast cancer, to be affected with the disease at a younger age, and more likely to have a negative outcome from the disease, they have a lower participation in breast cancer screening (Pinder et al., 2016; Sheppard et al., 2015). This research addresses breast cancer perceptions of African-born women in Dallas, as a tool that researchers can use to further investigate health issues in this population. Additionally, healthcare providers may use information from this study to develop policies and programs that may better provide a more effective approach to rendering services to this population of women. This chapter is followed by the research method and design discussed in chapter 3.

Chapter 3: Research Method

Introduction

The purpose of this study was to understand African-born, immigrant women's views of breast cancer and breast cancer screening as a proactive measure to effective treatment and prevention. In this study, I describe the perceptions of African-born women in Dallas, on breast cancer screening. Although researchers have addressed the perceptions of Black women on breast cancer related to issues of culture, education, socioeconomic status, and religion, I found no studies that addressed African immigrant women, their access to healthcare, their knowledge of breast cancer and breast cancer screening, or their experiences with breast cancer screening. For instance, their length of stay in the United States may be considered a factor that could influence their screening practices. In this chapter, I outline the methodology and study design, which helped provide an understanding of participants' health-seeking behaviors like breast cancer screening practices.

Research Methodology

I used a qualitative method of inquiry to study African-born women in Dallas. A qualitative approach is a preferred method for exploratory inquiry (Creswell, 2013). This approach helped me address the disparities in breast cancer screening (see Harcourt et al., 2014) as well as health-seeking behaviors of African-born women. In current research, various factors, such as language, culture, religion, socioeconomic status, and family support, were identified as influences of health perception and behaviors (Sheppard et al., 2015).

Using a qualitative approach also helped me address gaps in the literature. For example, some of the extant studies are inconclusive on the actual effects of the factors identified, such as culture, religion, socioeconomic status, and access to healthcare, as a decision factor to participate in breast cancer screening. For the data collection in this study, I used open-ended interview questions to elicit in-depth information from the participants on their perceptions of breast cancer screening practices.

Research Design

I chose a traditional qualitative inquiry to explore the breast cancer screening perceptions and experiences of African-born women in the Dallas in this study. The central concept of this study was the health practices of African-born women, especially concerning their participation in breast cancer screening. Though not necessarily a phenomenological inquiry, this study was conducted to reveal the significance of the perceptions of this population of women regarding breast cancer screening. Using a descriptive inquiry, I interpreted the participants' explanations of their perceptions, barriers, and motivation to use breast cancer screening services. The following research questions guided this study:

Research Question 1: What are the lived experiences of African-born women in Dallas, regarding breast cancer screening?

Research Question 2: What do African-born women in Dallas perceive as barriers to accessing breast cancer screening?

I considered other methods of qualitative inquiry but deemed them to be less effective in providing the necessary insights to understand the motivations and deterrents of breast cancer screening participation. For example, phenomenology, which is the study of the lived experiences of the participants, did not meet the needs of this study in seeking the perceptions of the participants (see Creswell, 2013). Additionally, grounded theory is used in cases in which the researcher is trying to develop a theory, but this study was based an existing theory to explain behaviors (see Creswell, 2013). Another design is ethnography, which is used to describe a culture or group (Creswell, 2013). Because ethnography addresses specific cultural groups, this approach was not applicable to this study. Finally, with case studies, participants are studied on the basis of events over time to gather information (Creswell, 2013). This approach was not selected for this study because I sought to understand beliefs resulting in a behavior and not events over a period of time.

As a researcher/inquirer, I identified and selected existing interview questions from related studies and ensured that the questions met the inquiry needs of this study. Data analysis was conducted inductively using specific and general themes and my interpretation of the data.

Participants of the Study

I purposefully selected 10 participants from church groups and other community gatherings from the location under study. Participants had to be an African-born woman, aged 35 years to 65 years old, and must have lived in the United States for 5 years or more. This latter qualifying criterion was employed due to previous studies that indicated that the length of stay in the United States has some effect on the health experiences of African-born immigrants (Ndukwe et al., 2013). Though the ability to speak English was not a criterion, the participants' ability to communicate in the English language enhanced my ability to collect information from them. Likewise, the level of education was not a demographic requirement to participate in the study. Although purposeful sampling can be biased, affecting the application to a larger community (Rudestam & Newton, 2015), it was important to address the purpose of the study that the participants met both the exclusion and the inclusion criteria.

Participants were approached at community gatherings and churches, where I provided them with information about the purpose of this study and my contact information so that those interested could contact me. I posted flyers and held a meeting with church and community leaders, where I shared information on the nature of the intended study and a request for assistance in recruiting participants for the study. I hoped that the discussion of the study with these leaders would encourage members to participate in the study.

The recruitment process also included scheduling meetings between me and potential participants to discuss the nature of the study. The meetings were mainly with individuals based on the participants' availability. Interested women contacted me via telephone (see Appendix A). During these discussions, I explained the interview process to the participants and gave them a chance to ask questions. They were also told that the process was voluntary and that at any time they were free to decide if they wanted to continue or exit the process. Interview sessions were scheduled for the participants who wanted to continue with the process. I had participants complete and sign the informed consent form before the first interview.

Measures

The purpose of this study was to understand the reasons African-born women have for low utilization of breast cancer screening services. In this study, I examined the following concepts: (a) the participants' understanding of breast cancer, (b) their knowledge of breast cancer screening and how it affects the outcomes of breast cancer, and (c) the role of faith, socioeconomic status, and access to healthcare.

Though I did not consider level of education as a factor to measure the perceptions of the participants, it did, however, come up during the in-depth discussions. Data were collected from the participants during the initial phone discussions and one-on-one interviews with me. The interview questions can be found in Appendix B.

Ethical Protection of Participants

The study participants were adult, female volunteers aged 35 to 65 years old, who were mentally and physically capable of making informed decisions to participate in the study of their own free will. I did not identify any foreseeable harm to participants that might originate from their participation in the study. If a participant had experienced harm or difficulties associated with participating in this study, a referral to local medical services would have been made. Each member was asked to complete a consent form prior to engaging in the interview to protect their confidentiality. Files, audiotapes, and transcripts related to the study were stored in a locked cabinet in my home office. Only I and those selected to assist in validating results have access to the transcripts. Identifying information was removed from transcripts prior to data validation.

Procedures

The following procedures served as a guide for the recruitment of and informing participants, the collection and analysis of data, and the validation of findings:

1. Contacted local churches and local organizations to explain the study and ask for assistance with informing and recruiting participants.
2. Sent informative letter detailing the nature of the study to participants, local church leaders, and community leaders.
3. Scheduled informative meetings with participants to present the study and provide a copy of letter describing the study.

4. Requested interested participants to contact me to schedule initial interview. A follow-up telephone call was made if there was no contact within 1 week of informative meeting.
5. During first individual interview, the participant was given a copy of the letter describing the study and asked to sign the consent form. The initial interview also included asking questions listed in Appendix B and may have prompted scheduling a second interview.
6. Second interview occurred approximately one to two weeks after initial interview. The second interview included asking questions listed in Appendix C. The second interview concluded by scheduling an individual interview in approximately two months. The length of time between the second and third interview allowed enough time for the audiotapes to be transcribed and analyzed.
7. Audiotapes were transcribed verbatim and analyzed according to the steps outlined at the end of this chapter.
8. One female and one male graduate student who were taking a qualitative methods course at Walden University at the time of the study assisted in validating themes extracted from transcripts. Both students were recommended by the course professor to ensure they had the capacity to perform the validation procedure. Walden graduate students selected to

participate in the validation procedure adhered to the ethical protection of participants previously identified in this study.

9. The third interview was conducted in an individual format to provide further validation that the results depict the participant's perceptions.

Evidence of Trustworthiness

Establishing trustworthiness in qualitative research is paramount to the study as is in quantitative research. Researchers often aim to establish the following as a statement of trustworthiness:

- Credibility as a form of internal validity,
- Transferability/generalizability as external validity,
- Dependability/reliability through audit trails and triangulation, and
- Confirmability/reflexivity of data and data analysis (see Creswell, 2013).

For this study, I established the credibility of the study by collecting data using skillful interview methods, such as first and second interviews or asking questions based on questions from participants' responses to initial questions. I worked closely with my chair and committee member during the data collection and analysis phase of the study to establish emerging themes and interpret the data in a dependable and reliable way. For confirmability, a detailed record of the data collection steps, data analysis, and interpretation were kept to provide trail evidence. A record of the detailed description of the study sample, setting, and results enable the transferability of the study results. Other researchers who find the study applicable to their work may use the information for the knowledge they are seeking. According to Hanson, Balmer, and Giardino (2011), the systematic application of these methods to establish trustworthiness in qualitative inquiry moves the gathering and interpretation of qualitative data from anecdotal observation to rigorous research.

Summary of Chapter 3

I investigated the health-seeking behaviors and breast cancer screening practices of African-born women in this study using a traditional, descriptive, qualitative approach. I developed interview questions based on those asked in previous, similar studies after obtaining permission from the developers; the validity of the interview questions was established before they were used for this study. Participants were purposefully selected from local churches and community gatherings in Dallas. Ethical issues concerning the safety and privacy of the participants were addressed according to the International Review Board guidelines. Data were collected during a face-to-face interview with qualified volunteer participants. Interviews were conducted up to two times to validate information from the participants. I expected that the findings of this study would contribute to existing knowledge on breast cancer screening practices that may narrow the gap in the equitable use of breast cancer screening services by African-born women, reducing the burdens of late stage diagnosis of breast cancer in this population of women. Chapter 4 follows with data analysis and reports

Chapter 4: Results

Introduction

Breast cancer screening is a way of detecting early signs and symptoms of breast cancer in women (Centers for Disease Control and Prevention, 2015). Early detection of breast cancer by using available screening methods and tools has contributed to lower the mortality and morbidity rate from the disease by 20% (Seigal, Miller, & Jemal, 2019). Though Black women are known to be at high risk for breast cancer, they are the least likely to utilize services that enable early detection of the disease (see Seigal et al, 2019). Ethnic groups, such as African-born women, continue to have low rates of breast cancer screening and delayed follow-up when an abnormal screening result is presented (American Immigration Council, 2017). Research has shown biennial mammography rates at 67% for African immigrant women, which is lower than the national average and the expected target participation rate of 81% by the year 2020 (see CDC, 2015).

Despite African-born women in Dallas representing a unique and fast-growing population of foreign-born women, there is a lack of studies involving this population regarding their health behaviors, especially regarding breast cancer screening. Conducting this study helped me understand the perceptions of African-born immigrant women in Dallas, on breast cancer screening. This is significant because the estimated new cases of breast cancer diagnosis in Texas was 18,750 in 2012, second to California nationwide (National Cancer Institute, 2014). This basic interpretative study was guided by the following research questions:

Research Question 1: What are the lived experiences of African-born women in Dallas, regarding breast cancer screening?

Research Question 2: What do African-born women in Dallas perceive as barriers to accessing breast cancer screening?

Setting

The initial phone interview, during which I collected demographic information from the participant, lasted for 10 to 15 minutes. I took the calls in my home office, and the participants were in the privacy of their homes. Data collection was conducted individually with participants at private settings or locations, such as their homes, my office, or the participants' private offices after work hours. I ensured that confidentiality and the respect of participants' privacy were observed throughout the duration of the study. Most participants were interviewed in the privacy of their homes, with no interruption or influence of other family members. The participants were encouraged to schedule a time when there would be no interruption for at least 1 hour. As a principal investigator, I observed the rule of being a good listener and developed good rapport with the participants. I also ensured that my knowledge or any other factors did not bias the response of the participants. No organizational or institutional influences impacted the participants' responses.

Participant Demographics

The participants in this study were women of African descent between the ages of 35 and 65 years old who had lived in the United States for 5 years or more. The level of education or socioeconomic status was not a criterion for the selection of participants but could be considered in the analysis of the data collected. I selected a total of 10 participants from different countries in Africa (i.e., Nigeria, Cameroon, Sierra Leone, Ghana, Zimbabwe, and Ethiopia) to participate in the study. The participants were asked to identify their age range to ensure that they met the age criteria. The level of education attained by the participants ranged from high school graduates to college graduates. There was no data collected on their income levels individually or per household, but they were all employed, married with children, or had been married at some point in their lives. Religious preference was not part of an interview question; however, all participants identified as Christians.

Tables 1, 2, and 3 depict the demographic details of the participants. Four participants were originally from Nigeria (40%). Three participants were between the ages of 45 and 50 years old (30%), and three participants were between the ages of 60 and 65 years old (30%). Two participants had lived in the United States for 10 years (20%). No participants had been diagnosed or treated for any form of breast cancer. Three participants had master's degrees (30%). Six participants were employed full time (60%).

Table 1

Sample Characteristics – Country and Age Range

	Frequency	Percent
Country of origin		
Cameroon	1	10.0
Ethiopia	1	10.0
Ghana	1	10.0
Nigeria	4	40.0
Sierra Leone	2	20.0
Zimbabwe	1	10.0
Age range		
35 to 40 years	1	10.0
40 to 50 years	2	20.0
45 to 50 years	3	30.0
50 to 65 years	1	10.0
60 to 65 years	3	30.0

Table 2

Time in Country and Cancer Diagnosis

	Frequency	Percent
How long have you lived in the United States?		
10 years	2	20.0
15 years	2	20.0
20 years	1	10.0
23 years	1	10.0
30 years	2	20.0
37 years	1	10.0
5 -6 years	1	10.0
Have you been diagnosed or treated for any form of breast cancer?		
No	10	100.0

Table 3

Education, Religion, and Employment

	Frequency	Percent
Level of education		
Bachelor’s degree	1	10.0
High school	2	20.0
Junior college	4	40.0
Master’s degree	3	30.0
Religious inclination		
Christian	10	100.0
Employment status		
Employed full time	6	60.0
Self-employed	2	20.0
Stay home mom and part-time business	1	10.0
Student	1	10.0

Data Collection

I followed the data collection procedures as detailed in Chapter 3. I conducted individual interviews with 10 immigrant women from Africa, who were 35 to 65 years old. The interviews and discussion were guided by the theoretical framework of HBM, which has been effective in studying individuals’ perceptions and decisions to take action or not to take action in seeking help for their health (see Moodi et al., 2011). In this case, participants’ decision was to participate in breast cancer screening programs.

In considering the location for the interview, factors, such as confidentiality and the comfort of the participants, played an important role. Most of the interviews were recorded to enable me to concentrate on interacting with the participants rather than on taking notes. The individuals who responded to the flyer notice were scheduled for a screening interview. A total of 15 women responded to the flyer notice. I called them to personally introduce myself, explain the interview process, and conduct a screening interview. During this phone conversation, I also scheduled interview time with qualified participants. After the screening, 10 of the volunteers were selected to participate in the study based on their availability and ability to commit to an interview time and process.

I provided the participants with a letter and informed consent form before the initiation of the interview. Informed consent was explained to the participants before they signed it in agreement that they were willing to engage in the conducted interview and that they accepted recording of the interview if necessary. No personal identifiers were used on the recorded interview or notes. The audiotape and transcripts are stored in a locked drawer in my home office. Data saved on my computer are protected with a personal access code used only by me. To avoid easy access by anyone who might use my computer, no information is saved on the desktop. The results of the data are presented with no names.

I asked each participant a total of 11 open-ended questions based on the HBM constructs of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. Each interview lasted 45 to 60 minutes, with an average time of 55 minutes. At the end of each interview session, each participant was instructed that they may be contacted for a second interview to clarify some of their responses during the previous interview. This study was approved by the Walden University Institutional Review Board (Approval No. 07-15-19-0619149) to ensure that the ethical principles of respect for the person, beneficence, and justice were carried out over the course of the entire process of the study.

One of the unusual circumstances encountered during the data collection process was the reluctance of African immigrant women to engage in the study. I found out that time was a big factor because these women were busy working two or more jobs to support their families. It was difficult to get them to commit to the 1 hour necessary for an undisturbed interview. In a community of over 500 women, only 15 responded to the flyer or notice given by the community leaders. I realized that the compensation provided for those participating in the study would have been a better incentive and had a bigger impact if the monetary compensation had been a little more than the stated amount; however, the interviews were still informative and meaningful.

Data Analysis

I asked the following open-ended, interview questions to elicit data from each participant:

1. What do you think are your chances of getting breast cancer?
2. What factors do you think could increase the possibilities of developing breast cancer?
3. What are your overarching concerns about breast cancer?
4. How would you describe the consequences of breast cancer?
5. What are the major advantages of having a mammogram?
6. What are the benefits of participating in breast cancer screening?

7. Describe your experience with healthcare providers that will prevent you from having a routine breast cancer screening?
8. What are the things that will hinder you from getting breast cancer screening?
9. What might motivate you to get routine mammogram?
10. How did the thought of being at risk for breast cancer influence your decision to get checked?
11. If you are given the offer to get a mammogram, what would likely increase your chance of complying as recommended?

Results

To address Research Question 1, I grouped data from participant responses into three subthemes concerning breast cancer screening: (a) perceived benefits, (b) cues to action, and (c) self-efficacy.

Perceived Benefits

Major advantages of having a mammogram: I determined the first thematic label from one invariant constituent (i.e., units that do not overlap): early detection. The 10 participants thought that the major advantage of having a mammogram was early detection.

Thematic Category 1 (i.e., early detection) shows the positive characteristics presented by 10 participants. Participant B said that the major advantages of having a mammogram were early detection: “It provides opportunity for the individual to seek the right kind of help if needed.” Participant E agreed with Participant B, saying, “Early detection… If there is a problem, breast cancer can be treated before it gets bad." Participant F agreed with Participants B and E, saying that annual checks would help with early detection, so breast cancer might be discovered early. Similarly, Participant H agreed with Participants B, F, and E, stating that the major advantages of having a mammogram was the opportunity for early detection and the chance of a better treatment outcome.

Benefits of participating in breast cancer screening. The second thematic label was determined from one invariant constituent as follows: to be in tune with what is going on with your body. Ten participants thought that the benefits of participating in breast cancer screening were to be in tune with what was going on with their body. The most important themes show that the major advantages of having a mammogram is early detection. Thematic Category 1 (i.e., to be in tune with what is going on with your body) shows the positive characteristics presented by 10 participants.

Participant F said, "Knowing if something is wrong in the early stage is important for better treatment results." Participant J agreed with Participant F. The participant said that the benefits of participating in breast cancer screening were the privilege of knowing her status with the disease.

Participant G agreed with Participants J and F. The participant said, "Knowing something in the early state is very important." Participant D agreed with Participants J, F, and G. The participant said, "To find out before it becomes a problem or at least early for chances of better treatment."

Cues to Action

Motivation to get routine mammograms: The first thematic label was determined from four invariant constituents (see Table 4): (a) the affordable cost for service and the fear of the unknown, (b) long life, (c) reminder, and (d) nothing will make me go for mammograms. The responses by six participants focused on positive opinions. Six participants thought that the cost for service and the fear of the unknown might motivate them to get routine mammograms. The most important themes show that the affordable cost for service and the fear of the unknown might motivate the participants to get routine mammograms.

Table 4

Motivation to Get Mammograms

Invariant constituents	No. of participants	% of participants
Affordable cost for service and the fear of the unknown	6	60
Long life	2	20
Reminder	1	10
Nothing will make me go for mammogram	1	10

Thematic Category 1 (i.e., the cost for service and the fear of the unknown) shows the positive characteristics presented by six participants. Participant I said that the fact that she had insurance and the cost was covered might motivate her to get routine mammograms. Participant C agreed with Participant I. The participant said, “I would get routine mammogram if the cost for service is affordable.”

Participant B agreed with Participants I and C. The participant said that the affordable cost for the service and peace of mind that she does not have the disease might motivate her to get routine mammograms. Participant A agreed with Participants B, I, and C. The participant said, “The fear of the unknown… When I see what is happening in the community, I want to know that I am ok.”

Thematic Category 2 (long life) shows the positive characteristics presented by two participants. Participant E said, “Long life, longevity.” The participant would get routine mammograms because she wanted to live longer. Participant H agreed with Participant E. The participant said, “To be alive for my children.” The participant would get routine mammograms to live to see them grow and be well taken care of.

Thematic Category 3 (reminder) shows the negative characteristics presented by one participant. Participant G said, “If I am reminded to go for the screening because I am not thinking about it. For example, October is breast cancer awareness month. People talk about it, but after that, no more.”

Thematic Category 4 (no mammogram) shows the negative characteristics presented by one participant. Participant F said that nothing would make her go for a mammogram. The participant denied mammograms and said she had phobia against it.

The thought of being at risk for breast cancer influences my decision to get checked. The second thematic label was determined from two invariant constituents: (a) the thought of being at risk is a reason to get checked, and (b) I do not have the thought of being at risk for the disease. Six participants said that the thought of being at risk was a reason to get checked, and four said that they did not have the thought of being at risk. The most important themes show that the thought of being at risk is a reason to get checked.

Thematic Category 1 (i.e., The thought of being at risk is a reason to get checked) shows the positive characteristics presented by six participants. Participant A said, “The thought of being at risk is a reason to get checked. Knowing that there is a 50/50 chance is scary and makes me take out time for screening.” Participant H agreed with Participant A. The participant felt that there was a 100% chance of getting breast cancer for several reasons. The participant felt that she was at risk and that was why she got checked as recommended by her physician.

Thematic Category 2 (i.e., do not have the thought of being at risk for the disease) shows the negative characteristics presented by four participants. Participant F said, “Not thinking about it, it is not something that people talk about. October is breast cancer month. People talk about it but after that no more. It is something that never crosses my mind.” Participant C agreed with Participant F. The participant had no thoughts of getting breast cancer. However, if she had insurance, she might get checked more often.

Self-Efficacy to Breast Cancer Screening

I will comply if I am given the offer to get a mammogram. The first thematic label was determined from one invariant constituents: I will comply. The responses by

10 participants focused on positive opinions. All participants said they would comply if they were given the offer to get a mammogram. The most important themes show that the participants would comply if they were given the offer to get a mammogram.

Thematic Category 1 (i.e., I will comply) shows the positive characteristics presented by 10 participants. Participant A said, “If my doctor recommends a mammogram for me, I will definitely comply and figure out a way to pay for it.” Participant C agreed with Participant A. “If the participant’s physician recommends it for a reason such as suspicion or signs of developing the disease, it will make her comply with the order.” Participant G agreed with Participants A and C. The participant said, “If it is a free offer or my insurance will cover the screening.” If the offer is from her physician due to identified risk, that will make her comply.

RQ2: What do African-born women in Dallas, Texas, perceive as barriers to accessing breast cancer screening?

The common theme was barriers to accessing breast cancer screening. The common theme has one subtheme: perceived barriers.

Perceived Barriers

Experiences with health care providers that will prevent you from having a routine breast cancer screening. The first thematic label was determined from two invariant constituents. The invariant constituents that are central to the subtheme are: (a) discomfort and (b) I have no caregiver experience that would prevent me from screening. The responses by eight participants focused on negative opinions. Eight participants thought that discomfort would prevent them from having routine breast cancer screening. Two had no caregiver experience that would prevent them from screening. The most important themes show that discomfort will prevent the participants from having routine breast cancer screening.

Thematic Category 1 (i.e., discomfort) shows the negative characteristics presented by eight participants. Participant A had discomfort with the machine even though the healthcare providers did a good job. Participant D agreed with Participant A. The discomfort of the machine scared her away even though she had no negative experience with the provider. Participant F agreed with Participants A and D and said, "I have never had a mammogram. I have a phobia. I have denied it spiritually. The person who developed the machine is very cruel to women. Even if I am given a free mammogram, I will not go. I have already denied it." Participant B agreed with Participants A, D, and F. The participant said that the care providers were professional and comforting, but the process was uncomfortable. Participant G agreed with Participants A, B, D, and F and said, "For me, I think women should go to female practitioners if they feel uncomfortable with exposure and being touched by strangers. I have not had a mammogram before, and I have not thought about it."

Thematic Category 2 (i.e., I have no caregiver experience that will prevent me from screening) shows the positive characteristics presented by two participants. Participant I had not had any negative experiences with providers. They had always been cautious and respectful. The participant kept up with her routine screening as recommended. Participant E agreed with Participant I and said, “They make you feel comfortable. It is not a scary place. They explain to you what they are going to do before they do it. I have no caregiver experience that would prevent me from screening.”

Things that would hinder you from getting breast cancer screening. The second thematic label was determined from four invariant constituents (see Table 5). The invariant constituents that are central to the subtheme are as follows: (a) insurance coverage, affordability, and work; (b) pain, (c) discomfort, and (d) nothing will hinder me from going for a mammogram. The responses by eight participants focused on negative opinions. Eight participants thought that discomfort would prevent them from having a routine breast cancer screening. The most important themes show that discomfort will prevent the participants from having a routine breast cancer screening.

Table 5

Hinderances to Breast Cancer Screening

Invariant constituents	No. of participants	% of participants
Insurance coverage, affordability, and work	7	70
Pain	1	10
Discomfort	1	10
Nothing will hinder me from going for mammogram	1	10

Thematic Category 1 (i.e., insurance coverage, cost, and work) shows the negative characteristics presented by seven participants. Participant A said, “If I do not have insurance coverage, sometimes we are so busy with work, we don’t make time to take care of ourselves.” Participant E agreed with Participant A and said, “Lack of health insurance." The participant did not have money, which would hinder her from getting breast cancer screening. Participant B agreed with Participants A and E. The participant said, "Affordability, if my insurance will not cover the cost." Participant J agreed with Participants A, B, and E and said, "Affordability or not having good health insurance."

Thematic Category 2 (i.e., pain) shows the negative characteristics presented by one participant. Participant D said, "The pain of the machine." If they were to improve the machine, it would make her want to get breast cancer screening.

Thematic Category 3 (i.e., discomfort) shows the negative characteristics presented by one participant. Participant F had not gone for a mammogram. She had not thought about mammograms, and said, "For me, I think people should go to female practitioners if they feel uncomfortable with exposure or being touched by strangers. Also, some people don't want to know due to fear."

Thematic Category 4 (i.e., nothing will hinder me from going for a mammogram.) shows the positive characteristics presented by one participant. Participant H said that nothing would hinder her from going for a mammogram. Participant H said,

> "The mammogram is the best gift a woman can give herself even if you don't have insurance. As a woman, that is the best gift you can give yourself. If you can afford expensive handbags, you can afford a mammogram."

Evidence of Trustworthiness

Often noted in qualitative researches, threats such as biases from both the researcher and the participants pose challenges to the trustworthiness of the study. As noted by previous researchers, trustworthiness can be achieved through rigorous processes which include use of a defined procedure to manage the study (Obi-Uche, 2014). With this in mind, one of the steps applied in this study was engaging various strategies in the description of findings. I employed methods that authentically represented the meaning of the responses described by the participants. The first method involved transcription of the recorded interviews -- listening to the recorded responses up to four times until it was clear that the responses were transcribed verbatim. For data analysis, the use of NVivo software was helpful in triangulation of data, as themes were generated from the converging of several sources of data from the participants (Creswell, 2009). The description of the perceptions of the participants, which directed the themes, provided rich and realistic results that added validity to the study results (Creswell, 2009).

The results of this study cannot be generalized based on the sample size and the purposive sampling method used in recruiting the participants. However, the findings from this study will provide a guide for future study, validate previous studies, and guide programs used by providers to better serve this population of women.

Summary of Chapter 4

In chapter 4, I presented the main themes that emerged from the interviews of individual participants on their perceptions and behaviors towards routine breast cancer screening. The study was conducted by following the proposed steps of the study methodology. The first interview was a screening interview of 15 volunteers who responded to the notice for research participants. A second full interview was scheduled and conducted with 10 qualified participants. An in-depth discussion and response to 11 questions was used to elicit data from the participants. Interviews were audio recorded in most cases, and one document was written. Participants' responses were transcribed verbatim by repeated listening to the audio recording. Data analysis was conducted using Nvivo data analysis software. The first common theme was the lived experiences of African-born women in Dallas, regarding breast cancer screening. Three subthemes were as follows: (a) perceived benefits, (b) cues to action, and (c) self-efficacy to breast cancer screening. The second common theme was barriers to accessing breast cancer screening. The one subtheme was perceived barriers. The themes that emerged from the interview responses from the participants were very helpful in identifying some of the factors that contribute to the screening habits of African-born immigrant women. This chapter is followed by chapter 5 includes a discussion of the findings.

Chapter 5: Findings

Introduction

Breast cancer remains the most commonly diagnosed cancer in women and has been identified as a leading cause of cancer-related death among women (Centers for Disease Control and Prevention, 2012). Breast cancer has especially impacted the ethnic minority population because ethnic minority women have died more in recent years from breast cancer than from any other disease (Obi-Uche, 2014). Likewise, ethnic minority women bear the burden of breast cancer as a disease more than the rest of their counterparts (Komen as cited by Obi-Uche, 2014). According to the ACS (2015), Black women are diagnosed with breast cancer at an earlier age than White women, and regardless of age, Black women have higher rates of TNBC, which means they more likely to experience recurrence of the disease, have poor prognoses, and are more likely to die from the disease. Women of African descent have twice the risk for TNBC due to their genetic predisposition of BRCA1 (ACS, 2015).

Early detection through breast cancer screening has improved survival rates, but Black women of African origin rank lower on the scale of users of breast cancer screening services (ACS, 2019). Though the diagnosis and outcome of breast cancer have improved for White, Asian, Hispanic, and non-African Black women, (ACS, 2019; Centers for Disease Control and Prevention, 2012), this did not address African-born women. For instance, the African immigrant women in Dallas, continue to present with increasing effects of late diagnosis of the disease due to low utilization of breast cancer screening services and lack of adequate education about the disease; therefore, I explored the perceptions of African-born women who reside in Dallas, Texas about breast cancer and breast cancer screening. Data were gathered through in-depth inquiries that addressed their perceptions of the disease in the following areas: perceived susceptibility, severity, benefits of screening, barriers to screening, cues to action, and perceived self-efficacy. Understanding the perceptions of this population of women will enable providers to develop awareness programs that are inclusive of African-born, immigrant women.

Summary of Key Findings

In this section, I summarize the results from the individual interviews of 10 participants comprising African-born, immigrant women between the ages of 35 and 65 years old, who resided in Dallas, had lived in the United States for at least 5 years, and had no history of breast cancer. Research Questions 1 and 2 guided the development of the main themes emerging from the data analysis.

Research Question 1 was: What are the lived experiences of African-born women in Dallas, regarding breast cancer screening? I placed the data to answer this question under three subthemes: perceived benefits, cues to action, and self-efficacy. All the participants agreed that early detection through routine mammogram is an advantage of getting checked. Awareness of what is going on with their body was also important to them. For cue to action, most of the participants (i.e., 90%) were motivated to get routine mammograms if it is affordable and if they are reminded because they want to live longer and to alleviate their fear of the unknown. However, one participant would not go for a mammogram event even if it were free due to her faith and spirituality. The thought of being at risk was a good reason to get checked for most of the participants; however, 40% of the participants indicated that they have no thoughts of being at risk. Nine of the participants would comply if given an offer to get checked, while one participant would comply only if there were an identified risk.

Research Question 2 was: What do African-born women in Dallas, perceive as barriers to accessing breast cancer screening? From the data gathered to answer this question, I generated one subtheme: perceived barrier. Most of the participants reported that discomfort and pain during mammogram is a major barrier to routine checks, even for those who have not had mammograms before but have listened to complaints from acquaintances. One participant would get checked even with the discomfort. Additionally, the participants considered the following factors as barriers to routine breast cancer screening: lack of adequate health insurance or poor financial status, work schedule, and fear of pain and discomfort. One participant would get checked despite all odds because she is aware of the benefits of getting checked.

Interpretation of Findings

In this section of the study, I provide my interpretation of the findings through the lens of the HBM as the conceptual framework of the study.

Main Theme: Research Question 1

Three subthemes emerged related to Research Question 1: (a) perceived benefits, (b) cues to action, and (c) self-efficacy to breast cancer screening.

Perceived benefits: Most of the participants identified some of the benefits of receiving routine mammograms, such as early detection of breast cancer, peace of mind knowing that they are cancer free, and awareness of what is going on with their body. According to one of the participants,

> One cannot overemphasize the benefits of routine mammograms. I go for screening every year since I turned 40 years of age; I do not miss it. I want to live longer for my children, and I want peace of mind for myself.

The literature reviewed in Chapter 2 and the framework of the HBM aligned with the findings of this study. For example, Ndikum-Moffor et al. (2015) found that 92.9% of the study participants agreed that breast cancer can be treated if diagnosed early; however, 80% denied that they are at risk for the disease. Additionally, in a study of Somali women, 8 of the 12 participants reported they have been screened for breast or cervical cancer or both in the past months to 4 years because they understand the benefits of getting screened for early detection and for peace of mind (Francis et al., 2014). This finding is also supported by the HBM, which states that individuals will comply as recommended if they identify benefits for such behavior (Carpenter, 2010). Furthermore, the severity, benefits, and barriers to service are more likely to predict expected behaviors (Carpenter, 2010).

Cues to action: Most of the participants felt that they would be motivated to get checked if the cost for services were affordable and because of fear of the unknown. Six out of 10 participants stated that the affordability of the mammogram and fear of the unknown are some of the factors that would motivate them to get routine mammograms. Two of the participants would go for routine checks because they want to live longer for their children. One would go if she were reminded, and one would not get a mammogram even if it were free. The individual who would not receive screening states that she has spiritually rejected cancer and would not entertain the thought of it or of getting screened.

One study that was reviewed supports this finding. Ndukwe et al. (2013) noted that age, education, and insurance are determinants of where and how women seek healthcare and health information. Although educational status was not part of the criteria for this study, age and ability to afford healthcare were considered. Additionally, participants in their study were from similar origins in Africa to those in the present study.

Self-efficacy to breast cancer: According to the American Psychological Association (n.d.), self-efficacy refers to individuals' belief in their capability to execute behaviors necessary to perform and control their motivation, behavior, and social environment. This subtheme emerged from the question on what the participants' choices would be if given the offer to obtain a mammogram. All the participants indicated that they would comply with the offer for various reasons. Most would comply if there were an identified risk and if the services were free or discounted. One of the participants would comply regardless of the conditions; she stated that everyone should give themselves a gift of life and health. In line with this finding, Ricks-Santi et al. (2016) revealed that African-born women's self-efficacy is influenced by culture, language barriers, and socioeconomic status. The findings of their study were also consistent with the findings of similar studies cited in their work.

Second Theme: Research Question 2

For Research Question 2, one subtheme emerged: perceived barriers to using breast cancer screening services. Most of the participants (i.e., 8 out of 10) reported discomfort and pain from the mammogram equipment. Two of the participants had never had a mammogram but perform digital exams of their breasts with soapy hands when in a shower. For the two that have not experienced mammography, they also attested that their friends who had experienced it have told them of the discomfort and pain associated with mammography. This finding is also supported by Ndukwe et al. (2013), who suggested the importance of the influence of friends and family members who had negative experiences with breast and cervical cancer screening. The authors also identified deterrents, such as fear of pain with the process, fear of possible diagnosis of the disease, religious beliefs, and culture values. Another hindrance to obtaining routine mammograms was lack of adequate health insurance.

Susceptibility to Developing Breast Cancer

This particular theme did not populate under the two common themes; however, the review of data had interesting participant responses that are supported by some of the literature reviewed for this study. Participant A stated that she had zero chance of getting the disease because she had no family history but was able to identify with some other factors that can lead to developing the disease. Participant I reported she had 1% chance because she has no family history, “but you never know . . . That is why I say 1%.” Participants B and J claim that they have a 50/50 chance of developing breast cancer because of lifestyle, being a woman over 40 years of age, environmental factors, and stress level. The rest of the participants reject it ever happening to them because of faith and religious beliefs.

The responses from the participants show that most of the participants are in denial or probably not well informed about the disease. In some of the literature reviewed in Chapter 2, similar findings were reported. For example, Ndikum-Moffer et al. (2015) reported that the perception of African immigrant women on their risk for breast cancer showed that only 20% of the study population recognized that they are at risk for breast cancer.

Limitations and Strengths of the Study

The limitations addressed in this study are reminiscent of those in other qualitative studies. First are the effects of a small sample size, which makes it difficult to generalize results from the study. I conducted this study with a sample of 10 purposefully selected participants. This sample could not have covered every country and every ethnic group in Africa. The majority of the participants in this study are Christians, whereas a Muslim or individual from any other faith may have a different experience, which could have changed the outcomes of the study. The outcomes of this study cannot be used to justify every action of all African immigrant women in the United States towards breast cancer screening or to determine their behavior in that regard.

Despite these limitations, I identified some strengths in the study as well. The in-depth knowledge elicited from the participants on their experiences with breast cancer screening and perceptions provided a rich understanding of the African-born women in Dallas, and their decisions about breast cancer screening. The participant sample consisted of women from six different countries in Africa, mainly the west and south of Africa, and the majority of whom are of the Christian faith. The sampling of women from different counties in Africa elicited a wide array of views and perceptions of breast cancer and breast cancer screening.

I minimized sampling bias through the use of participants who met the inclusive criteria: women of African descent, aged 35 to 65 years old, had lived in the United States for 5 years or more, and had no history of breast cancer. I controlled researcher bias through the use of clear definitions of words and terms used in the study and following the data collection procedures.

The trustworthiness of the study was boosted by having the data analysis team review the accuracy of the script by listening to the recorded interview. Likewise, the consistency of the participants’ responses provided saturation of information though the sample size was small. The results of this study may not be generalizable beyond African-born women in Dallas. However, the consistency of the responses from the participants support findings from similar studies in the literature reviewed for this study. Therefore, the results from this study may provide reference for future study and a guide for providers to better serve this population of women.

Recommendations

A purposive sampling method was used to select 10 study participants, women of African descent, between the ages of 35 and 65 years, and who have lived in the United States for 5 years or more. The study was used to investigate their perception of breast cancer and breast cancer screening. The proposal for this study did not consider the level of education and the participants’ ability to understand the English language. My recommendations are for future studies to include these criteria for a better understanding of this population of women regarding their perception of breast cancer and screening.

Additionally, a significant finding from the study was the lack of adequate knowledge of the disease by this population of women. Awareness at all levels of understanding should be made available to African-born women in the United States. Based on the responses of these women to the interview questions, it is my understanding that these women need proper information about the disease. Some of the responses included: “I have faith, and I am a prayerful person. I reject the disease, and I refuse to get it.” Agreeably, faith is a strong will, and acknowledgement of a higher power. However, the Bible also said that faith without works is not happening. Therefore, these women, through the faith platform of the church and the church leaders, should obtain awareness and education on how to be proactive about their health. In the same way awareness for diseases like high blood pressure and diabetes are spread through the church and community gatherings, the information about breast cancer and breast cancer screening should be added to the lists of health information. Although this study has some limitations, findings indicate there is an existence of barriers to accessing breast cancer screening by this population of women. The majority of the participants complained about financial barriers and lack of adequate health insurance. One of the responses was, “I would get a mammogram if it were offered to me free.” Women who cannot afford the cost of a mammogram are more likely to not go for screening. This barrier can be addressed by providing discounted and free mammograms to underinsured and low-income immigrant women. Also, as religious beliefs were major determinants of how these women view and understand breast cancer and breast cancer screening, the faith of the individuals should be considered when providing breast cancer education to African immigrant women.

Implications for Positive Social Change

Some of the major barriers for breast cancer screening identified in this study are financial limitations, pain and discomfort associated with mammogram experiences, and lack of adequate knowledge or ignorance of the disease. To minimize or eliminate these barriers, healthcare providers and policy makers must address these issues by implementing changes in their health policies that can enhance breast cancer screening among African immigrant women. Education and awareness about breast cancer and breast cancer screening should be dispersed to the community at the grassroot level, in languages of the people in the community, to ensure better comprehension. Though language was not identified as a barrier to breast cancer screening among the participants in the study, it is advisable that education and awareness information be made available in the language that the target audience can understand.

One implication for social change identified in this study is the limited knowledge of the disease, which was noted in the responses of the majority of the participants regarding their perceptions of being at risk or susceptible to the disease. Another implication for social change is the low participation rate for breast cancer screening. Social change can be made by educating this population of women to understand the facts about the disease and how they can be at risk for the disease. Local leaders, church leaders, healthcare providers, policy makers, and community advocates need to develop interventions that are inclusive of the characteristics of this population of women. The goals are to improve the understanding of the disease, increase mammogram participation rate, and improve the prognoses for the disease among African immigrant women in Dallas, and hopefully in other states in the United States. Though the findings of this study can only apply to African immigrant women in Dallas, due to study limitation, the recommendations may improve the mammogram participation rate for all African immigrant women due to the consistency of the participants’ responses that support the findings in previous studies reviewed for this research. By implementing the suggested social change strategies, African immigrant women in Dallas, will be better informed about the disease, which may improve their participation rate in breast cancer screening, and ultimately improve the prognoses of the disease due to early detection.

Due to the pain and discomfort barriers to breast cancer screening associated with the mammogram machine, researchers should implement improvement of the mammography machines to make screening less of a discomfort to women. Also, future research should use other behavioral theories to guide their study of health behaviors among African immigrant women.

Fear of the unknown and shame of identifying with the disease also came up in the participants’ responses. Other theories can be used to explain these fears and shame. These can be addressed in future research to ensure appropriate intervention for social change.

Conclusions

In this study I sought to provide understanding of the perceptions of African immigrant women in Dallas, on breast cancer screening. One of the findings in this study was the limited understanding of breast cancer disease, which was noted in their responses to some of the interview questions. For example, the majority of the participants denied that they were susceptible to the disease. Their reason was mainly the fact that they did not have a family history of breast cancer. This also was a major reason for nonparticipation in breast cancer screening practices. Other reasons for nonparticipation were fear of the unknown, fear of being diagnosed with the disease, and no insurance coverage. However, there was a consensus on the benefits of early detection through screening and early treatment. Some of the participants stated that due to the barriers of pain and discomfort experienced during the mammogram process, and financial limitations, they conduct monthly self-exams on themselves in the shower. This shows that they do recognize the importance of checking but have limited access to mammography screening. The majority of the participants recognized the benefits of regular mammograms as recommended. However, several barriers prevented them from getting screened. Some of the barriers were pain and discomfort associated with the mammogram machine, fear of the unknown, and financial limitations. Two of the participants would not get screened because they don’t want to know and responded that what they don’t know will not kill them. This indicates the lack of adequate knowledge of the disease. Not having money to cover the cost of mammograms and lack of adequate insurance coverage came up several times in the responses of the participants as barriers to breast cancer screening. They, however, were of the strong opinion that mammography was the best screening for early detection of the disease, and it would give them peace of mind to know that they do not have breast cancer and have a chance for early detection. The zeal to live longer for their children was also mentioned as a reason to get checked. Likewise, if they were offered free screening, majority of the participants (90%) would comply with the offer to get screened for breast cancer. One of the participants screened regularly because she got a reminder from her primary care physician as part of her annual wellness checks. Another participant stated that she would go for screening if she were reminded or given incentive to get screened, because this is the last thing on her mind. According to the HBM, individuals will not act unless they feel a threat to their health or life.

The reasons for denials and nonparticipation with breast cancer screening will have to change to improve the participation of African immigrant women in breast cancer screening. None of the participants had family history of breast cancer, and so did not think they were at risk for breast cancer. They must be educated on the fact that other factors can place individuals at risk for breast cancer. Furthermore, education that addresses the misconceptions of this population of women will help them to overcome their fears and improve screening rates. Community efforts such as free education and free screening by local hospitals and clinics can improve the accessibility of these women to breast cancer screening. Hospitals and clinics that provide free education and screening for diabetes and high blood pressure can add free breast cancer education and screening to their list. Healthcare providers can use the research resources as evidence-based practice for better service through a better understanding of the population they serve. Understanding barriers will help healthcare providers to develop and implement strategies for a more effective intervention.

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Appendix A: Participant Screening Interview Protocol Over Phone

Time of Interview:
Date:
Place:
Interviewer:
Interviewee:

1. Where is your country of origin?
2. What is your age range?
3. How long have you lived in the United States?
4. Have you been diagnosed or treated for any form of breast cancer?
5. How did you hear about this research?
6. What made you interested to participate in the study?
7. What level of education have attained?
8. What is your religious inclination?
9. What is your employment status?
10. Do you have health insurance?
11. What is your phone number and email address?

Thanks for your interest in participating in this research. I will send you a participant letter and I will call you to schedule a convenient time for a full interview. As the flyer indicated you will receive a $5 Starbucks gift card at the end of the full interview. Your identity and your response are kept confidential. If you have any questions before we schedule the full interview, do not hesitate to call me at XXXXXXX.

Appendix B: Interview Protocol for First Interview

INTERVIEW QUESTIONS

The following interview questions were tailored to the conceptual framework used to guide this research (the health belief model). This framework states that people will act to prevent disease based on the following.

Perceived vulnerability to the disease, perceived severity of the disease, perceived benefits for the action, perceived barriers to such action, and if they have knowledge of what action to take and are motivated.

Questions

- What do you think are your chances of getting breast cancer?
- What factors do you think could increase the possibilities of developing breast cancer?
- What are your overarching concerns about breast cancer?
- How would you describe the consequences of breast cancer?
- What are the major advantages of having a mammogram?
- What are the benefits of participating in breast cancer screening?
- describe any experiences with health care providers that would prevent you from having a routine breast cancer screening.
- What are the things that would hinder you from getting breast cancer screening?
- What might motivate you to get routine mammogram?
- How did the thought of being at risk for breast cancer influence your decision to get checked?

If you were given the offer to get a mammogram, what would likely increase your chance of complying as recommended?

Appendix C: Interview Protocol for Second Interview

Time of interview:
Date:
Place:
Interviewer:
Interviewee:
Position of interviewee: Country of origin: _______________
Age range: _________

The following interview questions were tailored to the conceptual framework used to guide this research (The Health Belief Model). This framework states that individuals will act to prevent disease based on the following:

- perceived vulnerability to the disease,
- perceived severity of the disease,
- perceived benefits for taking action,
- perceived barriers to such action, and
- if they have knowledge of what action to take and are motivated to take such action.

Questions

Perceived Susceptibility

- What do you think are your chances of getting breast cancer?
- What factors do you think could increase the possibilities of developing breast cancer?

Perceived Severity

- What are your overarching concerns about breast cancer?
- How would you describe the consequences of breast cancer?

Perceived Benefits

- What are the major advantages of having a mammogram?
- What are the benefits of participating in breast cancer screening?

Perceived Barriers

- Describe any experiences with health care providers that would prevent you from having a routine breast cancer screening?
- What are the things that would hinder you from getting breast cancer screening?

Cues to Action

- What might motivate you to get routine mammogram?

- How did the thought of being at risk for breast cancer influence your decision to get checked?

Self-efficacy to breast cancer screening

- If you were given the offer to get a mammogram, what would likely increase your chance of complying as recommended?

Thank the individual for participating in the interview. Assure her of the confidentiality of their response and future interview