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Cameroonian Women's Experiences in Seeking Breast Cancer Screening and Preventive Services

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2024

Abstract

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by

Cynthia Moore

MA, Wolford College, 2011

BS, Clayton State University, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

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Abstract

The research problem is that Cameroon women in the Mid-Atlantic region in the Northeast United States experience disparities in accessing breast cancer screening services, leading to increased morbidity and mortality from the disease, including limited access to healthcare insurance and providers. The purpose of this study was to use a qualitative phenomenological design to conduct face-to-face, audio-recorded, semistructured interviews with nine Cameroonian women ages 18 and above recruited from social clubhouses, monthly church gathering events, and monthly women's group meetings frequented by these women. The primary research question explored the participants' experiences in seeking breast cancer screening and preventive services using the social-ecological model framework and Penchansky and Thomas's access theory. Interpretative phenomenological analysis was used to analyze the data, including manual coding to obtain codes and themes from the interviews. Five themes were identified using thematic analysis: (a) accessibility to breast screening, (b) affordability for breast cancer screening services, (c) availability to address breast screening services, (d) acceptability to cope with and address screening services, and (e) awareness to address breast screening services. The findings from this study indicated that the participants had many challenges accessing breast cancer screening and other preventive services. Therefore, the potential for social change implications is related to the increased availability of early detection measures and understanding of the health-seeking behaviors of this targeted population.

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Dedication

I want to thank my Lord and Savior, Jesus Chris, for pulling me through the tedious journey I embarked on five and a half years ago. It was not easy, and I prayed, and the Lord answered my prayer. To my deceased parents, Daddy John Fogam and Mommy Mah Marggie Fogam, I have made you both proud and continue to rest well with the Lord. Mommy Mah Maggie, as I used to call you, you started this academic journey to become a Ph.D. holder, and I completed it for both of us. To my loving mother, Ma Joe Njingum-Fogam, thank you for advising me to pursue a doctoral degree in nursing, and I share this educational gift with you.

To my biggest cheerleaders, my handsome boys, John Gershman, and Noah Gershman, when mommy felt like giving up, you two were the backbone that pushed me to accomplish this milestone. Once again, to my babies (JB and Nunu), I know how proud you are of Mommy for achieving her dream. Last but not least, I dedicate this study to anyone who is or has been affected by breast cancer.

Acknowledgements

To my committee chair, Dr. Sipes, thank you for being one of my teachers who mentored me to obtain a Ph.D. in nursing at Walden University. You taught me intellectually to think outside the box, one of the essential personal and professional accomplishments I have acquired from my academic journey. I cannot thank you enough because when I look at the word educational role model, you are one of them. Thank you. Dr. Bailey, my committee member, I learned and gained a lot from the feedback I received from you during my dissertation journey. I am proud as a Ph.D. holder because of teachers like you, and I thank you for all you do for the Walden University nursing students. Special thank you to my siblings and family members for all the support.

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Chapter 1: Introduction to the Study

In the United States, it was estimated that there would be about 224,080 new cancer cases and about 73,680 deaths related to cancer in 2020 (Adegboyega et al., 2022). According to statistics, compared to other racial or ethnic groups in the United States, the Black community has the lowest survival rates and continuously higher mortality rates for most malignancies (Adegboyega et al., 2022). Studies have shown that breast cancer remains one of the most common cancers diagnosed worldwide and causes cancer-related deaths in women. Much progress in breast cancer care has been made to improve earlier diagnosis and survival rates with screening mammography and targeted treatment, but all populations have not experienced the benefits subsets equally, especially African American women (Stringer-Reasor et al., 2021). This study explored the experiences of breast cancer screening and preventive services among Cameroon women in the Mid-Atlantic region in the Northeast United States. Earlier detection of cancers primarily depends on access and management of the disease (Sharifikia et al., 2019). The potential for social change implications is related to increasing breast cancer screening awareness and availability of early detection measures, including challenges impacting the health-seeking behaviors of this targeted population. Addressing equal and early access to breast cancer screening may help lower breast cancer rates and mortality among this targeted group, including improving evidence-based best practices for clinicians dealing with this ethnic group.

This chapter presents the study's introduction, background, statement of the problem, purpose, research question, nature, and significance of the study. I discuss the theoretical framework for the study, limitations, scope, delimitations, and assumptions and define key terms for the study.

Background

Breast cancer most frequently begins in the ducts and lobules, though malignancies may originate in the glands under the nipples (Gersten & Stump-Sutliff, 2019). Cancer initiates in individual cells within tissues, which then abnormally multiply due to genetic changes or in response to atypical proliferative stimuli; these cells may amass further mutations, allowing them to reproduce unhindered at even greater rates (Gersten & Stump-Sutliff, 2019). The American Cancer Society (ACS, 2017) explained how most types of cancer cells ultimately form a mass of cells known as a tumor. Diseased cells usually differ from healthy ones in morphology, structure, and staining properties, making the original tissue unidentifiable in severe cases (Gersten & Stump-Sutliff, 2019).

Six types of cancer primarily affect women: ductal carcinoma in situ, invasive ductal carcinoma, mixed tumors breast cancer, lobular breast cancer, mucinous breast cancer, and inflammatory breast cancer (Fatima et al., 2020). According to the Centers for Disease Control and Prevention (CDC, 2018), inherent risk factors for developing this disease cannot be altered, such as a person's sex and age. Most breast cancers occur in females over 50 years old; additionally, genetic mutations (i.e., BRCA1 and BRCA2), family history (especially first-degree female relatives), reproductive history (menstruation prior to age 12 and menopause after age 55), medical history (previous breast cancer diagnoses), and prior radiation therapy (targeting chest or breasts) may increase an individual's risk of breast cancer (CDC, 2018).

Nonetheless, other variables have been addressed to reduce the chances of tumor development. According to the ACS (2017), modifiable behavioral factors, such as obesity, physical inactivity, alcohol consumption, and use of combined estrogen and progestin menopausal hormones, cause roughly one-third of postmenopausal breast cancers. By maintaining a healthy weight, remaining physically active, decreasing alcohol intake, and limiting the use of hormone replacement therapies, this risk can be reduced. Evidence has shown that having children before age 30, choosing to breastfeed, and limiting oral contraceptives may also lower a woman's chances of being diagnosed with breast cancer later in life (CDC, 2018).

A few studies have identified variables that increase breast cancer among African American women, such as disease stages at diagnosis, a lack of screening and follow-up care, and restricted access to cancer care and treatment, which cause racial disparities in cancer (Orji et al., 2020). The incidence of cancer and mortality rates have increased and are likely to increase substantially in Africa, according to projections from the World Health Administration (WHO, as cited in Brinton et al., 2017). Breast cancer is the most common in developing and developed nations, with approximately 690,000 new diagnoses annually in developed countries and around 90,000 cases annually in Africa. (Brinton et al., 2017).

Coughlin (2019) explained that socioeconomic factors such as unemployment, lack of education, poverty, and income inequality are among health's most critical social determinants. It is well established that low-income people are at increased risk of adverse health outcomes and are more likely to die prematurely Coughlin (2019). Compared to Whites, African Americans and Hispanics receive less income at the same education levels Coughlin (2019). They have markedly less wealth at equivalent income levels, significantly impacting breast cancer incidence rates. Mitigating the death rate means effective interventions are needed that account for the social and environmental contexts in which cancer patients live and are treated (Coughlin, 2019). This study addressed a gap in research and knowledge on the experiences of breast cancer screening and preventive services impacting Cameroon women who are, like many Black women, more likely to die from breast cancer. Treatment and easy access in an early stage are considered the best options for decreasing mortality (Sage et al., 2020). This study was crucial to help remediate the lower survival rates from breast cancer affecting Black women the most due to disparities in breast cancer screening.

Problem Statement

The inequity in breast cancer screening is the leading cause of breast cancer death among African immigrants in the United States (Adegboyega et al., 2022; Medhanie et al., 2017). Various barriers at the personal and system levels severely impact the uptake of early cancer detection, including lack of knowledge, poor screening awareness, fear of results, and poor access to services (Li et al., 2020; Skrobanski et al., 2019). The racial gap in breast cancer mortality is significant because of historical and continued systematic racism reflected in breast cancer care across the continuum, from lower-quality screening to substandard treatment (Collin et al., 2021; Giaquinto et al., 2022a). The evidence has indicated the significance of the problem to healthcare providers, especially nurses. For instance, Skrobanski et al. (2019) suggested that timely breast cancer screening can be addressed to reduce mortality rates by allowing nurses to promote intervention screening when assessing their patients because patients feel more at ease during consultations with nurses than physicians and will be more comfortable discussing cancer concerns.

In the past 5 years, studies have shown that breast cancer is the leading cause of cancer death among Black women, with an estimated 6800 Black women expected to die in 2022 (Lovejoy et al., 2023). Giaquinto et al. (2022a) argued that breast cancer death rates among Black women were approximately 50% higher than among White women in Arizona, Arkansas, Illinois, Michigan, Mississippi, and Missouri, including twice as high in the District of Columbia, which also shows that the foreign-born Black population is highly concentrated in the Northeast and South. Giaquinto et al. indicated that a recent study reported that, during 2016-2020, death rates among Black women in Maryland were 27.6 per 100,000 and 19.3 per 100,000 for White women.

The health needs of African immigrants in the United States are an understudied topic, especially in health screening for cancer and other diseases like HIV and cardiovascular disease, despite the population's rapidly increasing size and uniqueness (Collin et al., 2021; Omenka et al., 2020). African immigrants comprise about 5% of the U.S. population, with more than 36% arriving from West Africa (Adekey et al., 2018; Omenka et al., 2020). Previous studies in the past 5 years have clearly shown that the healthcare experiences of African immigrants in the United States are not well understood due to two main factors: the absence of research or funding on immigrant health and studies that view all Black people in the United States as the same or lumped together (Adekey et al., 2018; Omenka et al., 2020).

These trends have revealed a significant gap in the literature addressing breast cancer screening experiences among Cameroonian women in the Mid-Atlantic region in the United States. This justifies a study addressing breast cancer screening experiences because African immigrants are underrepresented in research, and research is needed to address the low participation of this segment of the population in breast cancer screening, which may reduce mortality rates (Adekey et al., 2018; Ogbonnaya et al., 2020).

Thus, I conducted this study to address the experiences of breast cancer screening among Cameroonian women in the Mid-Atlantic region in the Northeast part of the United States. Also, the research problem was framed within the discipline of nursing because Li et al. (2020) suggested that nurses play crucial roles in addressing disparities in breast cancer screening among their patients. For instance, nursing roles in areas like educator, counselor, and researcher can give them the authority to work autonomously with the patient using a holistic approach, which could improve early cancer detection and prevent mortality.

Purpose of the Study

The purpose of this study was to explore Cameroonian women's experiences in seeking breast cancer screening and prevention services in the Mid-Atlantic region using qualitative methodology phenomenological design. According to the ACS (2019), African American women are more vulnerable to dying from breast cancer because of less access to breast cancer screening. Black women are exposed to a 40% higher probability of dying from breast cancer than White women and have an 80% likelihood of dying if they are above 50 years old (ACS, 2021). According to Mascara and Constantinou (2021), fatalism prevents African immigrant women from undergoing breast cancer screening with the belief that the diagnosis of breast cancer is an immediate death sentence, and that screening will have less impact on avoiding death. This study may help shed light on the challenges to mammography screening and other preventive measures to reduce breast cancer mortality among a population with unequal access to affordable healthcare. It may help identify factors and opportunities to address both stakeholders' needs in developing interventions to improve mammography and other preventive services among these women who might have cultural or educational factors affecting access to breast health services. Further, this study's findings might help implement evidence-based patient care to mitigate these barriers and prevent delays in cancer care across the continuum by providing education, support, and care coordination among Cameroon women and other immigrant women. Finally, my study may expand knowledge for future research, such as addressing community health initiatives or community education, to barriers the participants may bring up when telling their stories.

Research Question

The research question used in this study was as follows: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services?

Theoretical Frameworks

Two conceptual frameworks were used for this study even though these conceptual frameworks have never been used to explore Cameroonian women's experiences in seeking breast cancer screening and preventive services in the Mid-Atlantic region. It was crucial to use these two theories because they provided comprehensive frameworks for analyzing the various stages of barriers that may prevent individuals from accessing healthcare services, including breast cancer screening and preventive services. The social-ecological model (SEM) and Penchansky and Thomas’s 1970s access theory guided the theoretical frameworks and research question to understand and gain knowledge of the experiences of breast cancer screening and preventive services among Cameroonian women.

Psychologist Bronfenbrenner first developed the SEM in the 1970s as a conceptual model for understanding the critical component of a child's environment and development (Bronfenbrenner, 1994). It was formalized as a theory in the 1980s and had five environmental constructs or circles to address human behavior changes and responses (Kilanowski, 2017). Kilanowski recognized that human beings are affected by an intricate range of social influences and environmental interactions. The SEM constructs were initially illustrated by nesting circles that placed an individual at the center while surrounded by various systems. The first circle closest to the person is the one that strongly influences them and includes the interactions and relationships of their immediate surroundings (Kilanowski, 2017). It includes factors like age, economic status, and education level influencing behavior.

The second circle is the mesosystem, which has influential relationships in an individual's life. It comprises the immediate surroundings an individual has direct contact with, like family, friends, workplace, church, and school (Bronfenbrenner, 1977). The next circle is the exosystem, which focuses on community, organizations, and social networks. It does not directly impact an individual but exerts negative and positive interactive forces on them. Poux (2017) stated that community is essential because it determines how people behave and the customs they endorse.

The fourth circle is the macrosystem and comprises religious, societal, and cultural values and influences (Kilanowski, 2017). They play a vital role in developing behaviors because they sometimes impose behavior-determining regulations and restrictions. There are prevention strategies employed at this point that help promote societal norms that will protect against negative behavior and efforts to strengthen education, financial security, and employment opportunities. The last circle is the chronosystem, which has internal and external elements of time and historical content (Kilanowski, 2017). It contains the influence of policies and laws made and enforced at the local, national, and international levels. These policies significantly impact a large number of people. For example, the U.S. Preventative Services Task Force (USPSTF, 2016) recommends that females between 50 and 74 years of age are at a higher risk of cancer and should get a mammogram every 2 years.

Furthermore, younger people – between 40 and 49 years of age – need to start talking about potentially getting a mammogram with their doctors (USPSTF, 2016). This socioecological theory by Bronfenbrenner suggests sustainable solutions that are important and useful to be applied in assessing Cameroon women's breast cancer screening experiences. The CDC (2022b) indicated that the SEM has the potential for disease prevention strategies, which can be used to target breast cancer education and screening. If various constructs are used appropriately among this ethnic group, it may reduce the incidence of breast cancer mortality rates.

Penchansky and Thomas developed the theory of access in 1981. Access relates to ensuring that patients receive the right kind of care at the right time, from the right provider, and in the right setting (Pugh et al., 2019). Access affects systems and consumers in three dimensions. The dimensions include system practice, consumer satisfaction, and use of the service. Penchansky and Thomas's theory of access defines access as the degree of fit between the service and the consumer. A better-fit results in better access, while a worse fit hinders access (Pugh et al., 2019). Access has various interconnected dimensions: affordability, accessibility, acceptability, availability, and accommodation or adequacy. Each of these dimensions is important when examining access (Pugh et al., 2019). The theory maintains that these dimensions cannot be separated from access and that access is a central aspect of health services.

Access is a concerning aspect of health research as it significantly influences health and healthcare disparities among minorities. It mainly concerns remote and rural regions due to low socioeconomic status, workforce shortages, long distances, and dispersed communities (Hoseini-Esfidarjani et al., 2021). Proving access to healthcare services exceeds proving the existence of a healthcare facility; it requires proving that the individuals benefiting from the service require it. This understanding supports effective resource allocation and positively influences the impact and use of healthcare services (Pugh et al., 2019).

Qualitative research in healthcare has used Penchansky and Thomas's theory of access to various degrees. Some studies have considered some of the dimensions, while others have applied them differently from how they are conceptualized in theory. The different applications can involve mislabeling, expanding, combining, or omitting various dimensions (Hoseini-Esfidarjani et al., 2021). Further, the model provides different dimensions that can be used to examine healthcare practices, which can provide vital education regarding gaps in breast cancer screening among Black women and other marginalized populations.

Nature of the Study

The selection of qualitative design in this study may be deemed most appropriate, as argued by Doyle et al. (2020), it recognizes the subjective nature of the problem and the participants' different experiences and will present the findings in a way that directly reflects or closely resembles the terminology used in the initial research question. From a philosophical perspective, this research approach best aligns with constructionism and critical theories using interpretative and naturalistic methods because it helps to generate data that describe the who, what, and where of events or experiences from a subjective perspective (Doyle et al., 2020; Kim et al., 2017). Using the qualitative phenomenological design, I was able to explore Cameroonian women's experiences seeking breast cancer screening and preventive services, including describing participants' actual experiences about a phenomenon, for example, asking the participants (tell me what is working or not working when getting a mammogram done) which was an appropriate approach using a qualitative phenomenological design because it gives a vivid experience through interviews (see Creswell & Creswell, 2018). I conducted a semistructured interview with open-ended questions to encourage individual participants to share their stories and expand on the research question. For instance, a nonleading but open-ended question with a follow-up question, such as “tell me about your experience with getting a mammogram,” is vital to capture in-depth individual experiences for data analysis to code and generate themes (Ravitch & Carl, 2021). The pandemic has created many restrictions on social gatherings, which could have impacted how some participants would want to meet to be interviewed. A Zoom or an audio recording were the two options used for the participants' interviewing. However, all participants interviewed preferred face-to-face interviews.

The following inclusion criteria were used to audio record the face-face-interviews with the number of participants who were able to provide enough information to meet data saturation: Cameroon female of origin, 18 years and above, able to read and write English, and those who legally signed the informed consent. Ethical guidelines for confidentiality with the participants were crucial, such as providing and respecting privacy and confidentiality of the shared experience, and pseudonyms or de-identifying names were used to protect the identity and decrease harm while conducting the research (see Ravitch & Carl, 2021). I also used journaling to help document ongoing field experiences and store information that could have been challenging to keep in memory. It is essential to use reflective journaling when conducting qualitative interviews because it could uncover challenges during field interviews (Meyer & Willis, 2018). I used Microsoft Word to organize the data instead of NVivo, and I manually coded the data to obtain themes from the interview.

Definitions

I used the following terms in this study:

Breast cancer: Diagnosed when a malignant tumor is found in the breast tissues (Gupta & Garg, 2020).

Breast cancer screening: Breast cancer screening means checking a woman's breasts for cancer before there are signs or symptoms of cancer (CDC, 2022a).

Breast self-examination: Involves a physical examination of the breast and its surrounding region using hands to gently rub the breast tissue to detect the existence of any lumps and visual inspection for any possible irritation or swelling (Ekici & Jawzal, 2020).

Ductal carcinoma: The most common type of breast cancer, which begins in the duct lining (Gersten & Stump-Sutliff, 2019).

Ductal carcinoma in situ: If the cancer has not spread outside duct lining, it is known and is considered noninvasive (Gersten & Stump-Sutliff, 2019).

Invasive (infiltrating) ductal carcinoma: When the proliferating cells grow into other areas of the breast tissue or metastasize to other body parts (CDC, 2018).

Lobular carcinoma, which may also be *in situ* or *invasive*: Lobular carcinoma is similar to invasive (infiltrating) ductal carcinoma in its ability to metastasize to surrounding areas, though the cancer cells originate in the lobules instead of the duct lining (Gersten & Stump-Sutliff, 2019).

Magnetic resonance imaging: Also known as an MRI, uses magnetic field and radio signals to penetrate the skin and capture an image of the inside of the breast (Ekici & Jawzal, 2020).

Mammography: The images of the breast are created through the process of ionizing radiation in the form of X-ray (Ekici & Jawzal, 2020).

Assumptions

The assumptions related to the phenomenology qualitative methodology. A

phenomenological methodology aligns with purposive sampling, and a range of purposive sampling techniques that have been described does not provide more extensive numerical details or numbers and lacks the scientific rigor associated with quantitative approaches (Doyles et al., 2020). The findings from this study were based on interpretation from the Cameroonian women's experiences rather than quantitative analysis, which involves assumptions that cannot be demonstrated to be true. This assumption was necessary for a phenomenological inquiry because I used purposeful sampling, which allows the selection of participants who can answer the research question, including semistructured interviews and open-ended questions, to gather data for analysis. I assumed that participants answered willingly and to the best of their knowledge.

Scope and Delimitations

The research problem was that the inequity in breast cancer screening is the leading cause of breast cancer death among African immigrants in the United States. This specific focus was selected because lack of access screening has contributed to a higher breast cancer death rate for Black women, which is 1.8 to 2.4 times higher than that for White women in the group aged 20 to 49 years versus 1.1 to 1.2 times higher in the group aged 70 years and older (Giaquinto et al., 2020b). Giaquinto et al. argued that more significant racial disparities in younger women partly reflect the higher proportion of triple-negative breast cancers, which have a younger age distribution and a lower likelihood of insurance coverage, associated with later-stage diagnosis and reduced access to high-quality treatment. This divergence in cancer screening coverage with age is more in racial minorities. Therefore, it is essential to screen older racial minority patients earlier, given that early diagnoses lead to better prognoses (Liu et al., 2021).

Therefore, I explored the experiences of breast cancer screening and preventive services among Cameroonian women. The population of interest was Cameroon women 18 years and above, living in the Mid-Atlantic region in the Northeast of the United States. The focus was on screening experiences among Cameroonian women. I used the SEM and Penchasky and Thomas's access theory to assess their experiences in accessing breast cancer screening and other preventive services. The primary delimitation of the study was participants who were Cameroonian women of origin who could speak and write or express themselves in English. The population excluded in this study was under 18 years old, non-Cameroonian women, and Cameroonian women not living in the Mid-Atlantic region in the United States. Because the target population was Cameroonian women in the Mid-Atlantic region, the transferability of this study to Cameroonian women in other geographical regions cannot be guaranteed.

Limitations

I used purposive sampling. However, according to Berndt (2020), this sampling method has a higher chance of introducing researcher bias into the study, especially if specific rules or criteria for judgment are poorly documented or explained. Moreover, ethical challenges could have been an issue in which some participants may have felt uncomfortable sharing information about cancer diagnoses with me. I was the main instrument of the study; I may have unknowingly encountered personal biases during data collection and data analysis biases due to personal beliefs. In addition, Shufutinsky (2020) noted that when researchers edit narrative data for thematic chronology, clarity, and relevance, it should be verbatim from the participant's transcript or in their exact words, with no interpretive commentary or researcher's voice in the narrative manuscript. Any deviation from these could increase biases and influence study outcomes, so I used constant comparative analysis to review each transcript and tape recorder to ensure that the participant's experiences were accurately used for data analysis to explain the findings of this study.

The researcher must also consider the context of the data collection, such as the environment of the interviews, the population being studied, and the research questions being asked to improve the credibility of their findings (Daniel, 2019). These can be addressed by being mindful of the types of interview questions used using the constant comparative process comparing against the original audio recordings, showing respect, and maintaining the participants' privacy, which means participants must sign the informed consent before participating in the study. The participants signed the informed consent and were advised to contact me if they had questions regarding the informed consent. Financial and time constraints also limited visiting clubhouses and other venues entirely to recruiting participants.

Significance of the Study

Significance to Practice

The Black populations have been affected by centuries of enslavement and brutality, particularly by segregationist policies that have long-lasting social and health impacts (Zahnd et al., 2021). Improving cultural access is, therefore, a key goal of healthcare policy and delivery, particularly in diverse communities where individuals may have limited English proficiency or cultural beliefs that impact their healthcare decisions. This could include policies such as providing interpretation and translation services, offering culturally appropriate health information and resources, and training healthcare providers to serve diverse populations effectively. Cultural or personal beliefs may impact an individual's willingness to seek care or use specific resources or services. For example, some individuals may prefer to use traditional or alternative forms of treatment or may not feel comfortable with typical medical procedures. Healthcare practitioners must consider the values, beliefs, and preferences of the individuals they serve and offer a range of options that cater to their diverse needs to ensure that individuals have access to adequate care. This may involve offering alternative or complementary treatment forms or providing information and support to help individuals make informed decisions about their care.

Significance to Theories

The SEM by Bronfenbrenner in the 1970s includes the individual and the environmental factors that affect the individual’s health-seeking behavior. At the same time, Penchansky and Thomas's access theory considers the five dimensions of accessing healthcare: availability, accessibility, accommodation, affordability, and acceptability, and how each dimension plays a crucial role in changing health outcomes. These two theories can help policymakers and healthcare practitioners identify areas where improvements are needed and develop strategies to improve access to care, especially breast cancer screening. Easy accessibility to mammography has been shown to be effective in detecting the early stages of breast cancer, and with timely intervention, the mortality rates are lower (Aleshire et al., 2021). In the context of breast cancer access among Cameroonian women, these theories provide comprehensive frameworks to understand and address the barriers to accessing appropriate care in the community and health organizations.

Significance to Social Change

According to the CDC (2020), the goal of healthy people 2020 is to attain high-quality health, promote excellent quality of life, and achieve equal access to healthcare. This goal can be achieved by implementing and the positive social change that impacts promotes health equity in communities, organizations, institutions, cultures, and society, thus reducing cancer disparities among Cameroon women and other Black women. According to the National Cancer Institute (2020), such disparities exist in the United States due to the social inequalities that hinder Black women from accessing the same health measures and benefits as their Whites counterparts because they live in underdeveloped areas with minimal health resources. Suppose healthcare institutions and other organizations take the initiative to create positive social change through education and screening the women in marginalized areas; this will provide them with the same health benefits (knowledge and access to medical care) that White women quickly obtain from hospitals. Hence, the health inequity gap between White and Black women could be reduced. This study could help bring positive social change that can ensure that preventive services are addressed by understanding the cultural backgrounds of these participants, including communities, organizations, institutions, and societal factors that may impact this vulnerable population. Finally, the findings from this study could contribute to positive social change by exposing healthcare issues that are not immediately apparent to policymakers to make decisions that can help reduce disparities in health access.

Summary

According to Giaquinto et al. (2022a), African immigrants and African American women comprise a more significant percentage of breast cancer patients than Whites. Giaquinto et al. indicated that the infection gap is impacted by their socioeconomic variances, where Black women are less fortunate to afford and access necessary cancer-related healthcare than Whites. This issue can be addressed by encouraging African American women to participate in screening processes by creating awareness about screening, from what it is to its strategies, benefits, and risks. Educating Black women can also equip them with the knowledge of the causes, preventive measures, risks, and treatment measures of breast cancer. The healthcare providers can educate them by conducting one-on-one or group breast cancer-based training sessions. They can also create awareness through social media platforms, focusing on African American audiences. This intervention can help increase Cameroon women's breast cancer survival rate and reduce the health equity gap in the United States.

Chapter 2 contains a detailed review of the literature on breast cancer etiology, other contributing factors causing breast cancer, disparities in breast cancer screening, the relevance of the theoretical framework to the phenomenon, and intervention and prevention.

Chapter 2: Literature Review

Introduction

According to Simo et al. (2021), the number of Cameroonian women younger than 35 diagnosed with severe high-grade breast cancer has significantly increased, and most patients die within 12 months after diagnosis. Breast cancer is the second leading premature death among women in the United States, measured by the average, including total years of life lost (Smith et al., 2019). According to Smith et al. (2019), in 2019, the ACS estimated that 268,600 cases of invasive breast cancer were diagnosed in U.S. women, and there were 41,760 deaths. Therefore, the purpose of this study was to explore Cameroonian women's experiences in seeking breast cancer screening and prevention services in the Mid-Atlantic region using a phenomenological qualitative design.

Despite improvements in breast cancer screening and detection, breast cancer mortality among African American women continues to be higher than non-Latina White women. This could be due to socioeconomic disparities, such as higher poverty rates, resulting in reduced healthcare access (Henderson et al., 2020). However, implementing effective prevention and early detection strategies can help reduce costs and achieve significant savings for health systems and individuals because cancers at earlier stages are less expensive to treat. Compared with a treatment-only approach, an analysis of the total economic savings of a prevention/early detection/treatment strategy was estimated at roughly 60% across all world regions (Ginsburg et al., 2020).

Chapter 2 gives details and strategies to search relevant literature for this study, including a literature review and theoretical frameworks.

Literature Search Strategy

I mainly used two libraries for the literature search: Walden and Johns Hopkins University. I accessed databases such as EBSCO, Science Direct, ProQuest Central, PubMed, and Google Scholar for relevant references for this study. The articles searched were within the last 5 years, including a few older than 5 years with pertinent information for the study. I used the Internet via Google Scholar and obtained more results, including many articles selected from the reviewed articles' reference lists. The search key terms were *Cameroonian women AND cancer, Cameroon breast cancer, African immigrants, African born in the United States, breast cancer AND immigrant women, minority hereditary AND breast screening and prevention*, *African immigrant women AND/OR breast cancer, social ecological theory AND breast cancer, social ecological theory AND Cameroon women AND breast cancer, Penchansky AND Thomas's theory AND breast cancer, accessibility to health care AND/OR immigrant women,* and *breast cancer screening AND mammography*.

I used search phrases mainly on words related to or applied to the research question and the study variables. Inclusion criteria were used only to search information sources that were in English and full-text articles. Exclusion criteria were publications before 2016, non-English, required payment for access, and nonpeer-reviewed.

Theoretical Foundation

I used the SEM by Bronfenbrenner and Penchansky and Thomas’s access theory as the frameworks for this study. The SEM is a theoretical framework that considers the various levels of influence on human behavior and development, including individual, interpersonal, community, and societal factors (Adu & Oudshoorn, 2020). It is a comprehensive and multidimensional approach to understanding the complex interactions between people and their environments. This model is widely used in public health, psychology, and sociology to identify the determinants of health and social problems and develop effective interventions. The SEM has its roots in several disciplines, including sociology, psychology, public health, and environmental studies. It emerged as a theoretical framework in the 1970s and 1980s as researchers began recognizing the complex and interconnected factors that influence human behavior and development (Adu & Oudshoorn, 2020). One of the early pioneers of the SEM was Bronfenbrenner, a developmental psychologist who developed the ecological systems theory (Soyer, 2019). Bronfenbrenner argued that human development is influenced by a complex system of relationships between the individual and their environment, including family, peers, schools, and the broader community. Bronfenbrenner emphasized the importance of understanding these relationships' dynamic and reciprocal nature in shaping human development (as cited in Adu & Oudshoorn, 2020).

Another influential figure in the development of the SEM was Steward, an anthropologist who developed the concept of cultural ecology and argued that human culture and behavior are shaped by the physical environment and the resources available within it (as cited in Haenn & Wilk, 2006). Bronfenbrenner emphasized the importance of understanding the interdependent relationship between human societies and their natural environment (as cited in Soyer, 2019). In public health, the SEM emerged in the 1980s as a response to the limitations of individual-level behavior change models in addressing complex health problems (Adu & Oudshoorn, 2020). Researchers recognized that health behaviors are shaped by various factors, including social norms, economic conditions, and environmental factors. The SEM has provided a framework for understanding complex and multiple levels of influence on health behaviors and for developing more comprehensive and effective interventions (Yoda & Theeke, 2022).

Since its development, the SEM has been applied to various health and social issues, including substance abuse, violence prevention, and environmental sustainability. It has become a foundational framework for understanding the complex and dynamic relationships between individuals and their environments and for developing interventions that address these complex interactions (Adu & Oudshoorn, 2020). The SEM consists of five interrelated levels of influence, starting from the individual level and progressing to broader social and environmental factors (Yoda & Theeke, 2022). The individual level includes the characteristics and behaviors of people, such as their genetics, personality, and health habits. It also includes their demographic characteristics, such as age, gender, and socioeconomic status. At this level, interventions focus on changing the individual's behavior to promote health and prevent illness. The interpersonal level focuses on the relationships between individuals, such as family, friends, and coworkers. It includes people's social support and social networks and the quality of their relationships. At this level, interventions aim to strengthen interpersonal relationships and social networks to promote health and well-being (Salmon et al., 2020)

The organizational level includes the characteristics of organizations and institutions, such as schools, workplaces, and healthcare facilities. It also includes the policies and practices of these organizations that may influence health behaviors and outcomes (Akinyemiju et al., 2022). At this level, interventions focus on changing the policies and practices of organizations to create a healthier environment. The community level focuses on the characteristics of the community in which individuals live, such as the physical environment, social norms, and cultural values. It also includes the resources and services available in the community, such as healthcare, education, and recreational opportunities (Akinyemiju et al., 2022). At this level, interventions aim to improve the community's infrastructure and resources to promote health and well-being. The societal level includes the broader social, economic, and political context in which individuals live, such as national policies and cultural values. It also includes historical and global factors that may influence health and well-being. At this level, interventions focus on changing the societal factors contributing to health disparities and social injustices (Akinyemiju et al., 2022). The SEM is a valuable framework for understanding the complex interactions between individuals and their environments. It recognizes that various factors beyond personal choice and control, such as social norms, cultural values, and economic structures, influence individual behavior. It also recognizes that effective interventions must address multiple influence levels to create lasting change.

The SEM is based on several underlying assumptions about human behavior and development (Akinyemiju et al., 2022). These assumptions shape how the model is used to understand and address social and health problems. The first assumption is that multiple levels of influence shape human behavior. The SEM assumes that human behavior is influenced by a complex interplay of individual, interpersonal, community, organizational, and societal factors. These factors operate at different levels and interact with each other to shape behavior (Henderson et al., 2020). The second assumption is that the environment shapes behaviors. The SEM assumes that the physical, social, and cultural environment in which individuals live significantly impacts their behavior and development. It includes immediate physical surroundings, such as the home, school, or workplace, and broader social and cultural norms and values.

The third assumption is that behavior is dynamic and interactive. The SEM assumes that behavior is not fixed or predetermined but is shaped by ongoing interactions between individuals and their environment (Salmon et al., 2020). Both individual characteristics and environmental factors influence behavior, which interacts to shape behavior over time. The fourth assumption is that behavior is adaptive. The SEM assumes that human behavior is adaptive and serves a purpose in responding to environmental demands and opportunities. Individuals may engage in harmful or maladaptive behaviors in one context but serve a proper function in another. The fifth assumption is that change can occur at multiple levels (Salmon et al., 2020). The SEM assumes that effective interventions can target multiple levels of influence to create lasting behavior change. Interventions can be designed to address individual, interpersonal, community, organizational, and societal factors, and these interventions can interact with each other to create positive change. The final assumption is that context matters. The SEM assumes that behavior and development are shaped by the social, cultural, and historical context in which individuals live. Different contexts may require different approaches to intervention, and interventions must be culturally and contextually appropriate to be effective (Henderson et al., 2020). Such assumptions shape how the SEM is used to understand and address social and health problems. The model recognizes that behavior is not simply the result of individual choices or traits but is shaped by a complex interplay of factors at multiple levels. Effective interventions must, therefore, address these multiple levels of influence and be contextually appropriate to create lasting change. Because the SEM acknowledges that different contexts may require different approaches to intervention, it is assumed that interventions must be culturally and contextually appropriate to be effective.

Penchansky and Thomas's access theory is a model that outlines the various dimensions of access to healthcare services (as cited in Kang et al., 2019). The theory focuses on the idea that access to healthcare is limited to the availability of medical services and the various factors affecting an individual's healthcare ability (Kang et al., 2019). This widely accepted theory has been used to identify gaps in healthcare access and develop strategies to improve healthcare delivery. Penchansky and Thomas's access theory was developed in 1981, building on previous work on access to healthcare services (as cited in Saurman, 2016).

Factors Affecting Breast Cancer Screening Among Black Women

Screening for breast cancer is an essential part of early diagnosis and treatment. However, for Black women, several obstacles make this procedure difficult, such as limited access to healthcare, lack of insurance, lengthy wait times, anxiety about the future, subpar medical care, and lack of awareness.

Lack of Transportation

One of the obstacles to Black women getting screened for breast cancer is a lack of transportation. This problem is especially noticeable in places with little or no private automobile availability and poor public transportation. In these situations, getting to medical institutions for screening appointments becomes difficult, making the situation even more difficult. Because there are fewer transportation choices in rural locations, this problem is especially severe and makes it more difficult for these women to get the healthcare they need (Aleshire et al., 2021). Accessibility to healthcare refers to a patient's ease of physical access to the healthcare system (Aleshire et al., 2020). This covers travel distance, time, expense, and mode of transportation for breast cancer screening.

Furthermore, those who were survivors and professionals mentioned transportation issues as a significant obstacle to getting therapy (Rose et al., 2022). For example, some women may postpone or forego mammograms or treatment entirely if they do not drive on freeways or find it challenging to go great distances because they lack transportation. This is especially concerning because prompt therapy is essential to the effectiveness of breast cancer treatment (Rose et al., 2022). Hence, improving transportation accessibility is a crucial component of a holistic strategy to address this issue, especially in neglected and rural areas.

Lack of Insurance

Another major obstacle to breast cancer screening is not having insurance, which has significant consequences for Black women, particularly those who belong to lower socioeconomic classes. The problem is made worse by financial limitations related to screening expenses, which may delay the timely discovery of breast cancer. It is impossible to overestimate the importance of early detection because it significantly improves the chances of a favorable outcome (Ponce-Chazarri et al., 2023). The intersectionality of race and socioeconomic position exacerbates this inequality by making it more difficult for women who are struggling to pay for preventative healthcare. Therefore, programs targeted at increasing the affordability and accessibility of insurance coverage for underserved communities must be included in efforts to reduce breast cancer inequities. Healthcare systems can facilitate fair access to critical screenings, encourage early detection, and ultimately lead to better results in the battle against breast cancer among disadvantaged populations by removing these obstacles.

Longer Waiting Time

Another significant barrier to early breast cancer screenings is longer wait times, attributed to trainee involvement in appointments, patients arriving late for their scheduled encounters, and busier clinics with higher daily volumes of appointments scheduled and fewer experienced clinical assistants (Kagedan et al., 2021). Thus, a multifaceted approach is necessary to address this problem, including better funding for healthcare facilities, more efficient appointment scheduling procedures, and the deployment of measures to lessen the strain on overburdened medical facilities. Healthcare systems can enable women to prioritize and access timely tests, boosting early detection and improving overall breast health outcomes by addressing the structural challenges that result in longer wait times (Aleshire et al., 2020).

Fear of the Unknown

For many Black women, fear of the unknown is a significant barrier to breast cancer screening (Aleshire et al., 2020). Hesitancy in obtaining preventive healthcare measures can be attributed to various factors, including a lack of knowledge about the numerous benefits of routine screenings or a widespread fear of the procedure's possible hazards. Women may be discouraged from actively participating in routine screenings that have the potential to save lives due to the complex nature of medical procedures and a lack of information (Aleshire et al., 2020). This fear is often rooted in the historical context of medical injustices that have disproportionately afflicted minority groups, disinformation, and cultural issues. Targeted initiatives to improve health literacy, spread factual knowledge about the efficacy and safety of screenings, and encourage candid conversations within communities are needed to overcome this obstacle. To break down stereotypes and provide Black women the capacity to make educated decisions about their breast health, community outreach activities, culturally sensitive educational initiatives, and the inclusion of varied perspectives in healthcare messaging are essential. The dangers associated with late-stage breast cancer diagnoses can be decreased if healthcare systems promote proactive involvement with screening programs by allaying worries through knowledge and empowering patients.

Poor Healthcare Providers

One of the leading causes of Black lower breast cancer screening rates is inadequate access to healthcare treatment (National Healthcare Quality and Disparities Report, 2021). Certain conditions like poor communication or interactions with healthcare providers during office visits to screen for breast cancer screening could create ineffective outcomes and lead to inadequate care. The consequences of these deficiencies are numerous, including reduced treatment efficacy, delayed intervention, and difficulty in detecting breast cancer early. (National Healthcare Quality and Disparities Report, 2021). Furthermore, the problem is made worse by institutionalized racial and ethnic inequities in the quality of healthcare. There is a noticeable difference in the level of care that Black women receive compared to White women since they frequently do not have equitable access to high-quality healthcare. The discrepancies can be observed in the patient's ability to afford quality care, such as the accessibility of screening resources for private insurance, public insurance, and uninsured payers. Black women can be guaranteed to receive the best possible treatment necessary for early detection and successful breast cancer screening if changes in quality of care by insurance status are addressed, and healthcare professionals' abilities are improved. (National Healthcare Quality and Disparities Report, 2021).

Lack of Awareness

Black women face significant awareness barriers to breast cancer screening. Misconceptions regarding breast cancer, the significance of regular screening, and screening treatments might result from this lack of knowledge. Misconceptions regarding breast cancer can reduce screening use, according to Yedjou et al. (2019). Black women may assume they have lower breast cancer risks than white women, regardless of family history. This notion may reduce mammography screening and breast cancer treatment. Lack of awareness includes not knowing the importance of regular screening. Women may not know that frequent screening can discover breast cancer early, improving treatment outcomes. Lack of comprehension can lead to underusing screening programs, raising the late-stage diagnostic risk. Breast cancer screening might also be hindered by misinformation regarding screening protocols. There are misconceptions among certain women about mammograms. Because they believe mammograms involve needles or syringes, they could be afraid of them and avoid them (Aleshire et al., 2020). Misunderstandings can result in the underutilization of screening programs, which increases the risk of breast cancer. To combat ignorance, a thorough strategy is required.

It is necessary to have access to precise and transparent information about breast cancer, regular screenings, and screening processes. It also entails debunking myths about breast cancer and promoting regular screening. Ignorance prevents Black women from getting screened for breast cancer. This problem necessitates providing clear and accurate information, dispelling myths and anxieties, and cultivating a favorable attitude toward routine screening.

The concept of access to healthcare has been a concern for policymakers, healthcare providers, and patients for decades. However, the origins of access theory can be traced back to the early 20th century. In the early 20th century, healthcare in the United States was primarily provided by physicians who worked independently or in small groups. It made healthcare services expensive and difficult to access for many people, particularly those living in rural areas or with low incomes (Cry et al., 2019)

In order to address this issue, the federal government began to develop policies and programs to expand access to healthcare services. In the 1930s, the federal government launched the Rural Health Initiative to address rural areas' lack of healthcare services (Hsiang et al., 2019). The initiative provided funding for constructing rural hospitals and clinics and increased the number of healthcare providers in rural areas. It was a significant step in expanding access to healthcare services, but it did not address the broader issue of access to healthcare services for all individuals. In the 1970s, researchers began developing frameworks for understanding healthcare services access (Saurman, 2016). One of the earliest frameworks was developed by Anderson and Aday in 1974. They identified three dimensions of access: availability, accessibility, and acceptability. This framework was essential in developing a theoretical understanding of access to healthcare services.

Penchansky and Thomas' Access Theory built on the work of Anderson and Aday and expanded the framework to include two additional dimensions: affordability and accommodation (Saurman, 2016).). Penchansky and Thomas explained that access to healthcare was not just limited to the availability of medical services but also the various factors affecting an individual's ability to receive healthcare. The development of Penchansky and Thomas' Access Theory was a significant step in understanding access to healthcare services. The theory provided a comprehensive framework that considered the various factors that affect an individual's ability to access healthcare services (Saurman, 2016). This framework has been widely accepted in healthcare and has been used to develop strategies to improve healthcare access (Out, 2018). These assumptions are based on the idea that access to healthcare is limited to the availability of medical services and the various factors that affect an individual's ability to receive healthcare, such as free government-subsidized insurance like Medicaid to low-income earners (Bercaw et al., 2022). The first assumption is that access is a multidimensional concept: Access to healthcare services is not just limited to the availability of medical services but also includes the ability of an individual to reach healthcare services, pay for the services, and to receive appropriate care. These dimensions of access are interrelated, and a lack of access in one dimension can affect access in other dimensions (Saurman, 2016).

The second assumption is that access is influenced by individual and systemic factors: Access to healthcare services is affected by individual and systemic factors. Individual factors include age, gender, race, and socioeconomic status, while systemic factors include healthcare policies, funding, and organizational structures (Aleshire et al., 2021). The third assumption is that access is a dynamic concept: Access to healthcare services is not static but dynamic and can change over time. Changes in healthcare policies, funding, and organizational structures can impact access to healthcare services for individuals and communities (Aleshire et al., 2021). The fourth assumption is that access is influenced by cultural factors: Access to healthcare services is influenced by cultural factors, including language, religion, and customs. Healthcare providers must be aware of these cultural factors and adapt their services to meet the unique needs of individuals from diverse backgrounds (Aleshire et al., 2021). The fifth assumption is that access is a right: Access to healthcare services is a fundamental right, and all individuals should have access to healthcare services regardless of their socioeconomic status or other individual factors.

Previous Application of the SEM and Penchansky and Thomas's Access Theory

Yoda and Theeke (2022) used the SEM as an appropriate framework for elucidating the various factors influencing health and well-being. It provides a complete perspective of the factors affecting specific health behaviors, including the social determinants of health within the individual, social, organizational, and policy environments. The five stages of this framework were used to identify literature to answer the research question as follows. These authors conducted 38 studies included in the current review, which were evaluated within the context of the SEM and identified that there were several gaps in healthcare accessibility and coverage at the policy level; provision of culturally sensitive approaches to care at the organizational level; system and structural barriers at the community level; and the lack of empowerment, including knowledge deficits, and awareness at the individual level on breast cancer screening among African American and Latino women. For instance, Siddiq et al. (2020) argued that an increasing number of studies find that factors such as socioeconomic status, insurance coverage, and access to care cannot fully explain disparities in cancer screening and mortality in ethnic minority populations, with the used of SEM as a framework can offer contextual perspectives that are helpful to understand the refugees' women screening behaviors from individual levels to policy level.

Retrouvey et al. (2019) did a systematic review to comprehensively summarize barriers to access surgical intervention, specifically breast-conserving surgery or mastectomy reconstruction, and evaluate access to the patients using the Penchansky and Thomas conceptual framework six dimensions of access to care. Retrouvey and colleagues (2019) discovered that patient factors, such as advanced age, non-Caucasian ethnicity, and lower socioeconomic status, were negatively associated with all six dimensions of access to breast reconstruction. The location and type of hospital also influenced patient access to breast reconstruction; patients treated at a teaching hospital or in an urban setting were more likely to have access to breast reconstruction compared to a rural geographical hospital. These authors believed the Penchansky and Thoms'a Access Theory could be tailored toward a comprehensive intervention to address multifactorial problems impacting access to breast cancer treatment.

In their studies, Aleshire et al. (2020) also confirmed that health equity is complex and that access to mammography should be considered broader than insurance coverage or access to a physical mammography suite. These scholars argued that Penchansky and Thomas's Access Theory shows how system, cultural, and structural issues are intricately connected and how this combination impacts care utilization. Despite changes to health care policy that provide more expansive access to insurance, women of color continue to experience inequitable health outcomes.

Rationale for the Selected Theories

These two theories provide the rationale for understanding the experiences of participants' experiences in breast cancer screening. They provide dimensional levels that influence health behavior, access, and prevention. The SEM conceptualizes how many diseases and illnesses develop based on social and ecological factors. At the same time, these variables also play a role in the success of interventions addressing these health issues (CDC, 2022b). The four-dimensional levels of SEM identify factors that could play a crucial role in contributing to poor health and how to address them to achieve better health outcomes, such as developing disease prevention and health promotion strategies and interventions. (Kilanowski, 2017).

Penchansky and Thomas's access theory has been used in the literature to address and examine Black women's mammography beliefs and experiences, specifically focusing on barriers to mammography access (Aleshire et al., 2021). Other theories, such as the Levesque’s access framework, is another commonly cited framework that defines access as the population's ability to seek then obtain care. Levesque’s access framework further identifies the availability of resources, utilization power, and resistance as the dimensions of access and assesses health systems' performance (Cu et al., 2021). The Levesque’s access framework is not selected because Penchansky and Thomas's Access Theory is more suitable for this study. After all, it elaborates more on the access to care as a "fit" between the needs of patients and the capacity of healthcare systems and can easily be applied to answer the research questions to guide this study.

Selected Theories in Relation to the Present Study and the Research Question

These two theories relate to the study and research question because they help explore the participant's experiences in breast cancer screening. The research question was as follows: What are the experiences of Cameroonian women in seeking breast cancer and preventive services? For example, Penchansky and Thomas's Access Theory argued that to acquire healthcare services effectively, one must experience exposure to these dimensions: availability, accessibility, accommodation, affordability, and acceptability (Otieno et al., 2020). The SEM has been used to address health experiences and provide multiple dimensions that can be used to address these experiences and prevention, which are: (1) individual, (2) interpersonal, (3) community, and (4) government (Akinyemiju et al., 2022). The SEM and Penchansky and Thomas's access theory are related to the research question, which will help to gain an in-depth understanding of the experiences the participants have encountered in seeking breast cancer screening and preventive services to recommend strategies that improve access to prevent higher mortality rates.

Aleshire et al. (2020) used Pechansky and Thomas's Access Theory to study a secondary analysis of qualitative interview data. The preliminary study assessed beliefs regarding mammography screening among Black women visiting the emergency department (ED) for nonurgent with less access to breast cancer screening and preventive services. This research-based analysis presented an opportunity to contextualize those barriers using the lens of Penchansky and Thomas' five access domains. Significant findings emerged that elucidate these barriers and permit deeper exploration of ways to promote mammography in this underserved population (Aleshire et al. 2020).

Penchansky and Thomas's Access Theory reflects the expectations of healthcare "fit" between healthcare consumers, the patients, the healthcare system, and the providers (Aleshire et al., 2021). The theory assumes that to acquire healthcare services effectively, one must experience exposure to these dimensions: availability, accessibility, accommodation, affordability, and acceptability (Otieno et al., 2020). Penchansky and Thomas's access theory provides a comprehensive framework for analyzing the various barriers that prevent individuals from accessing healthcare services, including physical proximity to care, financial constraints, organizational barriers such as wait times and availability of services, informational barriers such as lack of knowledge about healthcare options, and cultural barriers such as language and health beliefs (Aleshire et al., 2021). The ACS (2021) indicated in the literature that Black women, compared to other races, are at higher rates of dying from breast cancer, especially when they are above 50 years due to less access to breast cancer screening.

The SEM has been used to address health behaviors and provide multiple dimensions that can be used to improve preventive services. There are four critical assumptions made under this SEM: (a) individual, (b) interpersonal, (c) community, and (d) government (Akinyemiju et al., 2022). Akinyemiju and colleagues (2022) explained how a socio-ecological framework could be used not only for cancer prevention but also for promoting health behaviors risks in diet, tobacco, alcohol, and vaccine uptake, approaches to promote routine cancer screenings, and policies to support comprehensive cancer treatment.

I used the SEM and Penchansky and Thomas's access theory to gain an in-depth understanding of experiences of seeking breast cancer screening and preventive services among Cameroonian women.

Literature Review

Studies Related to Methodology

I synthesized the retrieved articles into various sections in this main literature review section: (a) studies related to the methodology, (b) the strengths and weaknesses inherent in their approaches, (c) the rationale for the selection of the variables, and (d) studies related to the key concepts and research questions. As indicated, the concepts discussed in the literature review were mainly focused on the topic, the study’s purpose, the problem statement, and the research questions.

I used a phenomenological methodology approach for this study. Kilic et al. (2019) indicated how they used a phenomenology approach to explore the experiences of women with physical disabilities regarding the barriers to their participation in breast and cervical cancer screening. Kilic and colleagues (2019) were able to gain more understanding of their participants' experiences. The study participants stated that they experienced difficulties in carrying out daily activities and going to the hospital. These problems included the absence of paths suitable for a wheelchair/vehicle, lack of access to ports where they could charge electric wheelchairs, and difficulties accessing public transportation. Adegboyyeg et al. (2018) conducted a phenomenological qualitative study using a semi-structured interview guide with open-ended questions to gain insight into the screening behaviors of African American women. These researchers were able to get a clear understanding of the phenomena. For instance, they gathered from their participants that access, cost, support system, and fatalistic beliefs were some factors that prevented them from getting regular mammography screening mammography.

In a study by Obikunle and Ade-Oshifogun (2022), a qualitative approach was used to explore African American women's perceptions and experiences of breast cancer and prevention. The participants shared their experiences, which gave these researchers valuable insight into this population's beliefs, attitudes, and perceived barriers to breast cancer screening. Obikunle and Ade-Oshifogun (2022) indicated that from what they gathered from this study, perceived barriers should be considered when developing intervention measures to heighten awareness about breast cancer screening among African Americans.

Alsrayheen et al. (2022) indicated that they used a qualitative phenomenological methodology to uncover the lived experiences of Middle Eastern immigrant women living in Canada during their cancer survivorship journeys. Alsrayheen and colleagues (2022) suggested that the study aimed to recruit up to eight women to elucidate the richness of the individual experiences and justified that the use of phenomenology as a research methodology will help to understand the meaning of the phenomenon as described by those participants who have lived the consciousness experience. These researchers justify using a qualitative phenomenological methodology to explore participants' experiences in breast cancer screening and preventive services because it helps show how a qualitative phenomenological method is an excellent approach to understanding participants' subject experiences of the phenomenon. It has helped paint a vivid picture of why this approach is more suitable for my study because these researchers were able to explore the participants’ experiences in an in-depth, personal manner, thus bolstering information that I can use to show a connection between the purpose of the research and the significance of the study in my study.

Jone et al. (2021) used grounded theory to conduct a cross-sectional, exploratory study using a qualitative approach involving semi-structured interviews in person or over the telephone based on participants' preference to explore knowledge and perceptions of BRCA1/2 genetic testing among diverse women in South Florida. These researchers utilized a snowballing sampling technique to allow study participants who were already enrolled to invite eligible family members or friends to participate in the study hoping that their findings could guide future framework on genetic breast cancer testing.

Obikunle and Ade-Oshifogun (2022) indicated that they used NVivo 10 and Interpretative Phenomenology Analysis (IPA) method for data analysis. I used IPA instead of NVivo approach in my study. Jedlickova et al. (2022) indicated that IPA focuses on understanding personal experience and examines the importance an individual attaches to their lived experience, a suitable approach for thematic data analysis for my study.

The Strengths and Weaknesses Inherent in Their Approaches

In the literature review, studies have been suggested for different approaches to use in breast cancer screening and the impact it may have on Black or African American women. Some of these suggested breast cancer screening approaches are either beneficial or have not been beneficial. This section will discuss the strengths and weaknesses of the suggested breast cancer screening strategies.

Genetic Testing

Genetic testing to screen for breast cancer shows that genetic mutations in the BRCA1 and BRCA2 genes are known to increase a woman's risk of developing breast cancer, and some studies have found that Black women with breast cancer are more likely to have mutations in these genes compared to women of other racial and ethnic groups (Reid et al., 2020). The advantages of using genetic testing (GT) for BC survivors may inform patients about options for managing the risk of second primary cancers (Conley et al., 2020a). GT testing can educate patients about specific gene mutations to help their loved ones get prophylactic testing (Conley et al., 2020b). The weakness of genetic testing among Black women is that research studies show that despite the increased availability of BRCA testing in the past 25 years, the tests remain significantly lower among Black women due to lower rates of provider discussions and recommendations for genetic testing among Black women than White women (Reid et al., 2020).

The findings from (Conley et al., 2020b) indicated that Black women, including male participants in their study, may withhold sharing genetic information with other family members, which may indicate that education and communication on the importance of *BRCA1/2* for men are particularly critical for Black populations. The weakness in their study is that some family members might find it intrusive to share crucial medical screening results with other family members, thus limiting important medical information that helps detect genetic breast cancer to other family members.

Conley et al. (2021b) indicated that the strength of this study is that the study sample had a relatively high retention rate, with 69% of baseline participants completing the 12-month follow-up assessment. Conley et al. (2021a) used longitudinal and observational studies in their research, and one of the limitations was that the results may have been subject to selection bias because their study was limited to the Florida Cancer Data System (FCDS).

Breast Cancer Screening Guideline

Breast cancer screening (BCS) guidelines using clinical breast examination (CBE) and breast imaging (that is, mammography, ultrasonography, magnetic resonance imaging [MRI], and digital breast tomosynthesis [DBT]) have shown some benefits in allowing healthcare providers and their patients to decide on a suitable timeline for yearly or bi-annually breast cancer screening to reduce morbidity and mortality (Qaseem et al., 2019). Shah and Guraya (2017) identified one of the strengths of using diagnostic guidelines is that it decreased breast cancer death rates that can be avoided in different age groups utilizing mammography as a breast cancer screening modality are 3% among women aged 40–49 years, 8% in women aged 50–59 years, 21% among women aged 60–69 years, and 13% in women aged 70–74 years.

However, Preventive Services Task Force (USPSTF) notes that the net benefit is small in women aged 40 to 49 years because the use of mammography shows false positive results 61.3% among females aged 40–49 years and 42% among women aged 50–59 years (Shah & Guraya, 2017). The WHO emphasizes screening implementation only in the context of shared decision-making and rigorous research for most women, regardless of age. The Canadian Task Force on Preventive Health Care (CTFPHC) conditionally recommends against screening for women aged 40 to 49 who are not at increased risk and encourages clinicians to focus shared decision-making in this age group on women who express a preference for screening (Qaseem et al., 2019).

Another study indicated that all professional organizations' BCS guidelines must be revised because of conflicting guidelines and recommendations (Ngan et al., 2020). However, as Ngan et al. (2020) indicated, the breast screening guidelines are limited by the conflicting guidelines from these influential organizations, which can create uncertain experiences and confusion among clinicians and their patients on the appropriate guidelines and recommendations. Thus, one standard guideline is recommended.

Breast Self-Examination

Albeshan et al. (2020) explained that breast self-examination (BSE) has been subject to much controversy; first introduced in the 1950s by Haagensen, which recommended that women perform BSE every two months. The main intention was to detect breast tumors early to reduce the number of patients diagnosed with advanced cancers (Shah & Guraya, 2017). It was later modified by the National Cancer Institute and the ACS by encouraging BSE once per month, a week after the initiation of the menstrual period (Albeshan et al., 2020).

Seifu and Mekonen (2021) indicated that this technique remains one of the strengths for early cancer detection, mainly in low and middle-income countries where access to diagnostic and curative facilities may be problematic. Early studies by the Nottingham Centre in the U.K. and the Canadian National Breast Screening Study (CNBSS) showed that practicing BSE could help reduce breast cancer mortality

(Albeshan et al., 2020). Congruent Albeshan et al.'s (2020) and Shah & Guraya (2017) finding indicated that the limitation of BSE is not convincing to reduce the mortality rate, and experts have no consensus to recommend them widely in breast screening. Also, two large RCTs concluded that there was no apparent benefit from regular BSE practice in reducing breast cancer mortality rates (Albeshan et al., 2020). Seifu and Mekonen (2021) noted in their studies that another limitation is that studies included in this meta-analysis were represented from the West and East African countries due to the limited number of studies in the other areas. Therefore, some regions may be underrepresented in women from other African regions.

Rationale for the Selection of Variables or Concepts

The rationale for selecting breast cancer screening, Penchansky and Thomas's access theory, and the SEM model as the variables in this qualitative study are based on numerous factors. For example, in the study conducted by Reid et al. (2020), it was observed that only 37% of Black women in their sample of women aged 50 years and below diagnosed with invasive breast cancer were referred for genetic testing/counseling compared to 85.7% of White women.

In addition, even when racial minorities such as Blacks are diagnosed with hereditary breast cancer, the rates of family disclosure remain to be significantly lower, thus increasing Black's women susceptibility to breast cancer (Adams et al., 2015). However, some researchers argue that person-level factors such as negative attitudes towards genetic testing cannot be overlooked, but recent studies reveal that Black become more eager to receive genetic testing once they are made aware of the services (Adams et al., 2015; Reid et al., 2020). Notably, although patient-level factors such as reluctance to do genetic testing/counseling, provider and system factors significantly contribute to the lower genetic testing rates among Blacks which contributes to the mortality gap on breast cancer between Black women and White women.

A study by Hoppe et al. (2019), indicated that cultural/psychosocial beliefs, financial restrictions, decreased access to care, ineffective communication between physician and patient, racial discrimination, and system issues contribute to Black women's vulnerability to access healthcare and breast cancer screening guidelines, thus making it difficult for Black women to receive timely and appropriate breast cancer screening and diagnostic services. In a study conducted by Orji et al. (2020), it was noted that the four main enabling factors for mammography use are income, access to care, and insurance coverage. However, health insurance rates among Black women are significantly low, and racial stratification in the US limits their access to mammography screening services, resulting in late detection and diagnosis of breast cancer and increased breast cancer mortality rate.

According to Schwartz et al. (2021), the health belief model effectively explains how perceived risk influences mammography use among Black women. For instance, early studies indicate that Black women often misinterpreted their breast cancer risk, contributing to their low breast cancer screening rates. In addition, individuals with low-income levels are less likely to adhere to clinical recommendations such as breast cancer screening, and thus they are less likely to perceive themselves as vulnerable to breast cancer (Schwartz et al., 2021). Black and Richmond (2019) indicated that BSE could benefit many African women in most sub-Saharan African countries. However, they can also lead to the over-detection of benign lumps, unnecessary physician visits, and diagnosis-related expenses, which are undesirable in these countries where health facilities and resources are limited.

Aleshire et al. (2021) used Penchansky and Thomas's access theory to describe black women's mammography beliefs and experiences, specifically focusing on barriers to access. Aleshire and colleagues (2021) argued that availability also refers to physical access. Physical access refers to healthcare resources in a given area, and a lack of availability could limit access for black women living in underserved communities. This element encompasses factors such as the distance to the nearest healthcare facility, the availability of transportation, and the physical accessibility of the facility for individuals with disabilities (Kilic et al., 2019). Kang et al. (2019) explained that asylum seekers and refugees also have difficulties physically accessing facilities where they can have scans. They are not usually familiar with the geographical area, limiting them to accessing hospitals and health facilities that offer such services.

Barrow and Pollack (2022) advanced the discussion on Penchansky and Thomas’s theory of access on affordability as the relationship between the price of healthcare services and the cost-sharing capabilities of clients, which could be charged for service, health insurance cost-sharing, and timing of required payment, including co-pays and deductibles. It is a significant barrier for many black women, who are more likely to be uninsured or underinsured (Barrow and Pollack, 2022).

Aleshire et al. (2021) indicated that physical access is a critical aspect of healthcare access as it affects black women's ability to reach and receive care. Lack of physical access can lead to longer wait times, increased costs, and decreased utilization of healthcare services, particularly among vulnerable populations such as elderly individuals and those living in rural areas (Aleshire et al., 2021). Kilanowski (2017) argued that the SEM is appropriate for breast cancer screening. After all, it uses knowledge, demographic characteristics, beliefs, and skills on an individual and multiple levels on how it significantly influences breast cancer screening behaviors and outcomes.

Therefore, Cameroonian women in the United States, like other African immigrant or African American women, face a disproportionate burden of breast cancer, with higher incidence and mortality rates compared to women of other racial and ethnic groups, creating the need to focus on breast cancer screening experiences, access and health promotion as the variables in my study.

Studies Related to the Key Concepts and Research Question

The concepts are related to my research question about Cameroon women's experiences and breast cancer screening, even though there are limited studies on breast cancer in this study. In the literature review, the researchers support that breast cancer screening access, for example, using screening guidelines and genetic testing indicates that Black women have poorer screening and testing rates. The use of BSE has been recommended, but its effectiveness is controversial and remains to be studied. Tsapatsaris et al. (2022) assert that African American women have less knowledge about BRCA1 and BRCA2 genetic tests, which cause deadly breast cancer illness. Tsapatsaris et al. (2022) note that most African American women do not follow the American College of Radiology's breast MRI screening standards, which may detect breast cancer early because most lack the knowledge and understanding.

Aleshire et al. (2021) explained that due to financial constraints, Black women have lower breast cancer screening and mortality rates. In places that have not expanded Medicaid, the uninsured may postpone vital examinations owing to expense. The uninsured risk postponing breast cancer screening despite the Affordable Care Act's coverage enhancements. Despite having health insurance, most Black women cannot afford preventable care and mammograms (Aleshire et al., 2021). Ponce-Chazarri et al. (2023) asserted that medical distrust and health information gaps are more common in Black breast cancer patients than White, which may lead to suspicion of their healthcare providers, healthcare avoidance, discontent, and poor breast cancer screening knowledge.

Tsapatsaris et al. (2022) advanced the argument that geographical access to care is a barrier often faced by underrepresented women, mainly where low-income populations live, causing African American breast cancer patients do have lower screening and high mortality rates. Black women tend to reside in low-income regions, which may limit their access to these services due to transportation and financial hurdles in acquiring cancer health treatment. The unemployment during the pandemic shutdown may have had a more significant impact on Black women to means of transportation to pursue breast cancer screening and other preventive health measures. Black women without steady incomes and benefits may be unable to afford health care and take time off work (Tsapatsaris et al., 2022).

In a study by Sage et al. (2019) found that spirituality might influence health practices like breast cancer screening. Religious or spiritual beliefs may explain why Black women have lower breast cancer screening rates and higher mortality rates. Spirituality and religion may preserve and promote health. Some religions emphasize health and body care. Such attitudes may promote healthy lifestyle choices, including seeking healthcare and breast cancer screening. However, black women's religious or spiritual beliefs may inhibit preventative health treatment. Some religions emphasize faith healing, prayer, and God as the ultimate healer, discouraging medical interventions like screening (Sage et al., 2019).

Cultural access is critical because it affects the ability of individuals to understand and utilize healthcare services, regardless of their physical or financial access to care (O'Hara et al., 2018). These barriers can lead to mistrust and a lack of engagement in the healthcare system, resulting in delayed diagnoses, decreased utilization of screening services, and decreased participation in clinical trials. Lack of cultural access can lead to misunderstandings about care, decreased utilization of healthcare services, and decreased health outcomes (O'Hara et al., 2018).

Summary and Conclusion

This study, I examined Cameroon women's experiences in seeking breast screening and preventive measures because cancer is one of the most common cancers nationally and globally. Its incidence and mortality rate are much higher in certain ethnic groups, including Cameroonian women. Furthermore, Cameroonian women who are immigrants to the U.S. are at even greater risk for being diagnosed with this condition, while they also suffer from a much higher mortality rate than their white and even U.S.-born black peers. I will use the SEM and Penchansky and Thomas access theory to explore their experiences, including all constructs of these two theoretical frameworks.

I retrieved research studies on the focus topic, and what is known is that studies have shown that Black women have lower breast cancer screening rates and increased mortality rates due to medical system distrust. (Sage et al., 2020). In a study by Vo et al. (2021), Black patients are more likely than White patients to experience negative consequences in cancer incidence, mortality, and adverse effects. These effects may be attributable, in part, to differences in nurse-physician treatment decision-making for Black patients. What is unknown in this topic is if nurses can be educated on the impact of structural racism, ways in which to mitigate its effects, and the role of research and implementation in reducing implicit bias and providing best practices that yield optimal patient results and reduce cancer health disparities (Vo et al., 2021).

The significant gap identified in the published literature is that limited phenomenology qualitative methodology studies focus on this topic. Most qualitative studies using phenomenology design are mainly on Black women or African American women because most cancer studies view all black people in the U.S. are the same (Omenka et la., 2020; Adekeye et al., 2018). Therefore, this study was conducted to address the research gap in the literature and may help narrow the breast cancer screening and death gap between Cameroonian women and other ethnicities. It could also provide better health literacy and provider-patient relationships among nurses and other healthcare providers to improve access to healthcare and resources needed to reduce Cameroonian and Black women's breast cancer mortality rates.

The extensive literature reviews provide evidence and justification for future research because it shows a nationwide picture of breast cancer mortality and disparities in healthcare among Black and White women. It has helped paint a vivid picture of why more studies need to be done on a vulnerable population, thus bolstering information that I can use to show a connection between the purpose of the research and the significance of the study in my dissertation study. Chapter 3 contains the research design, setting and sample, sampling method, data collection and analysis, instrumentations, and ethical considerations.

Chapter 3: Research Method

Introduction

The purpose of this qualitative phenomenological design was to explore Cameroonian women's experiences and perceptions from the research questions on breast cancer screening and preventive services. A qualitative design that described participants' actual experiences about the phenomenon was appropriate using a qualitative phenomenological design because it gave a vivid experience through interviews (see Creswell & Creswell, 2018). The participants were recruited through social gatherings like club churches and purposeful sample techniques. The participants were from the Mid-Atlantic regions in the United States. The findings from this study may provide insight into the experiences of this segment of this population whose lives are negatively impacted by breast cancer. Also, this study's findings may provide strategies to improve physical access to care, improve reliable health information, increase affordability, address cultural barriers, and accommodate s to breast cancer care among black women.

In this chapter, I present (a) the purpose of the study, (b) the research design selected and rationale, (c) the role of the researcher, (d) the methods for selecting participants, (e) instrumentation, (f) data collection, (g) data analysis plan, (h) issues of trustworthiness, (i) ethical procedures, and (j) a summary.

Research Design and Rationale

I conducted this study using a qualitative phenomenological approach addressing the following research question: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services? This approach helped to provide the straightforward subjective nature of the problem and the different experiences the participants have and enabled me to present the findings in a way that directly reflects or closely resembles the terminology used in the initial research question (see Doyle et al., 2022). A phenomenology design presents an essential opportunity to capture the lived experience of participants, which allows for the unearthing of phenomena from the perspective of how people interpret and attribute meaning to their existence (Frechette et al., 2020).

Ravitch and Carl (2021) indicated that a qualitative phenomenological design allows scholars to delve further into complex issues to obtain quality data and enhance the study findings' validity. For instance, I was able to explore obstacles such as language, literacy, poverty, and a lack of information and awareness from the participants by using a qualitative phenomenological approach. A qualitative phenomenological design was appropriate for this study because it required me to suspend my attitudes, beliefs, and suppositions and gain information and knowledge from the participant's experience of the phenomenon (see Neubauer et al., 2019). This approach allowed me to gain personal information from the participants and tell their stories from their points of view.

Research Question

What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services?

Role of the Researcher

In this study, I was involved in all the stages of the research. I assumed the role of interviewer and researcher, including being engaged in participant selection and recruitment, data collection, and data analysis. I did not involve any participants who were family members or with whom I had personal relationships. I did not have any supervisory, instructor, or power role over the participants. The participants were Cameroonian women in the Mid-Atlantic region in the Northeastern United States. I collaborated with the community and church leaders to help me gain access to the participants. The participants were given an invitation letter through email to gain informed consent to participate in the study. I explained the purpose of the research, and the interview length was 30 to 60 minutes, including the transcript with all names de-identified to maintain privacy.

For this study, I was the primary instrument and shaped how the data were collected, which means I was aware of personal biases that may have occurred while interviewing the participant. Ravitch and Carl (2021) noted that bias and positionality are significant factors when conducting qualitative research because they can alter a study's credibility and trustworthiness. Thus, I used reflexivity in journaling when interviewing participants because the researcher's reflexivity informs their positionality concerning the phenomenon of interest and requires the examination of the researcher's own beliefs, practices, and judgments throughout the study (see Ravitch & Carl, 2021). Because I explored the participant's experiences or perceptions, I was able to refer to the reflexivity diary throughout the interviewing and writing process to help minimize biases by using the participant's exact words. It was crucial to use a reflexivity diary because it explained how interpretations of the research were formed, including the write-up and conclusions of the study, to create trustworthiness and validate the findings.

Methodology

Participant Selection Logic

A few authors have raised arguments concerning the appropriate sample size in qualitative research, but Gill (2020) argued that there are no specific rules for determining sample size; instead, researchers must collect enough quality data to answer the research question because sample size may change as the research progress, but data collection is achieved or ceases once saturation is achieved. Creswell and Creswell (2018) indicated that in a qualitative study that uses the phenomenology approach, the estimate ranges from three to 10 participants. A few authors argued that researchers should select a sample that will yield rich data to understand the phenomenon being studied because sample sizes may vary significantly depending on the characteristics of each study (Hennink et al., 2019; Morse, 2015). Hennink et al. (2019) concluded that saturation is the most common guiding principle to assess data adequacy for a purposive sample. Also, saturation is attained when there are no new responses to yield further information from the study participants (Iddrisu et al., 2020).

I selected Cameroonian women ages 18 and above in the Mid-Atlantic region in the United States, with data saturation met at nine participants. The setting was in social clubhouses, monthly church gathering events, and monthly women's group meetings frequented by these women. I used purposeful sampling when choosing the participants in this study. Purposeful sampling was appropriate for this study because it allowed the participants to provide critical information on experiences or insights to enhance the purpose of the study (see Gray et al., 2017). The interviews were 30 to 60 minutes per participant. I used demographic data such as employment, education, religious status, marital status, and age and included information from the participants' interviews.

The following inclusion criteria was used to determine if Cameroonian women in the Mid-Atlantic region in the Northeastern United States met the criteria and could participate in this qualitative study: (a) Cameroon female of origin, (b) ages 18 and above, (c) able to read and write English, and (d) able to legally sign informed consent.

Instrumentation

I conducted a semistructured interview with open-ended questions to encourage individual participants to share their stories and expand on the research question. For instance, a nonleading but open-ended question with a follow-up question, such as “tell me about your experience when getting a mammogram,” was vital to capture in-depth individual experiences for data analysis to code and generate themes (see Ravitch & Carl, 2021). The interviews comprised semistructured interview questions guide that I developed (see Appendix A). I anticipated that the semistructured interview questions guide would be a sufficient data collection instrument to answer the research question based on my understanding and analysis of the literature I reviewed. McGrath et al.

(2019) indicated that developing an interview guide with semistructured and open-ended questions before engaging in research interviews gives the novice researcher the skills to explore language, the clarity of the questions, and aspects of active listening, including the opportunity to probe, in order to dig deeper to gain more useful information.

I used journaling or field notes to help document ongoing field experiences and store information that could be challenging to remember. It is essential to use reflective journaling when conducting qualitative interviews because it could uncover challenges during field interviews (Meyer & Willis, 2018). I used Microsoft Word transcription to organize the data and manually coded the data to obtain themes from the interview. Content validity was maintained by ensuring that I read and re-read the interview transcript using a constant-comparative approach against the original audio recordings as many times as needed to maintain its originality from the participant's exact words.

Procedures for Recruitment, Participation, and Data Collection

Participants were Cameroonian women living in the Mid-Atlantic region of the United States. Inclusion and exclusion criteria were used to ensure participants' participation in this study. I collected the data using face-to-face interviews in a prearranged setting of the participant's convenience and comfort or Zoom calls, depending on the participant's preference because of the COVID-19 concern. The interviews were 30 to 60 minutes per participant. The face-to-face interview data were collected using a tape recorder, field notes, or journal. Field notes document ideas, dates, and locations, including observations that the audio recording cannot capture (Jain, 2021).

I used demographic data such as employment, education, religious status, marital status, and age and included information from the participants' interviews. I used nine participants until data saturation was met. Ethical guidelines were significant and were followed throughout the study. The participants were informed to end the interview if they felt uncomfortable going through the process. Once the interview was completed, the participants were debriefed immediately for feedback, but there was no return for post follow-up interview debriefing. I thanked them for participating and informed them to exit the interview.

Data Analysis Plan

I applied the interpretative phenomenological analysis (IPA) approach in this study. Jedlickova et al. (2022) stated that IPA is a thematic approach that focuses on understanding participants' personal experiences and examining how participants relate to those experiences. Braun and Clarke's (2006) 6-step qualitative thematic analysis was applied in the study, which was (a) familiarizing myself with my data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report (as cited in Xu & Zammit, 2020). In the first step, I listened to the audio interview tape multiple times to ensure that the participant's interviews and the field notes had the same information. Furthermore, using the constant-comparative approach to compare back to the original interview adds credibility and trustworthiness to the research.

I used Microsoft Word to organize the data, including transcribing the data from the audiotaped interview. The next step was to read the transcribed audiotaped twice or more to identify or find repeated meanings across a data set, which is crucial to interpreting phenomena (see Xu & Zammit, 2020). I manually identified emerging themes and subthemes from my transcript and coded them using tables. A constant comparative method from the participants' responses was to review, define, and name themes essential in answering the research question (see Braun & Clarke, 2006, 2021). I then produced the final report, including the findings and recommendations. Transcriptions and audiotapes were disregarded for discrepant cases, such as incomplete data, for instance, if the participant's audio interview was not audible to identify responses or failed to answer research questions.

Issues of Trustworthiness

Researchers must ensure that their study establishes trustworthiness, which meets the following criteria: credibility, transferability, dependability, conformability, reflexivity, and ethical procedure (Nyirenda et al., 2020). I employed these processes throughout the study to ensure biases were checked and implemented steps that maintain the credibility of my findings.

Credibility

Credibility is essential in qualitative research because it defines the trustworthiness and believability of the research findings and determines the collected data's quality and accuracy (Korstjens & Moser, 2018). Credibility is an essential measure of the quality of the research and can be established through various methods, such as triangulation and participant validation (Nyirenda et al., 2020). Nyirenda et al. (2020) argued that credibility compares and contrast the different data sources and to identify that themes are coded iteratively. I used this process to ensure that I referred back to the individual participants' responses through the recorded transcripts, created code into initial emergent themes, and then diligently revisited them until no new codes emerged to validate the trustworthiness of the findings.

Transferability

Transferability is a critical concept in qualitative research because it infers the extent to which the findings of a research project potentially can be applied to different contexts or settings (Daniel, 2019). It is a concept used to assess the trustworthiness of the research because transferability should not be meant for the researcher to make generalizable qualitative research claims but to provide sufficient details that make the transfer possible in case readers wish to apply it (Lincoln & Guba, 1985; Nassaji, 2020). Transferability for trustworthiness can be done through an in-depth discussion of the context in which the research was conducted and how that context may affect the results (Nyirenda et al., 2020). It is also essential to discuss how the results could be applied to a different or similar context or population (Nassaji, 2020). For example, my study was on the experiences of Cameroonian women seeking breast cancer screening and preventive services in the Mid-Atlantic region; my findings can be applied to help fill the research gap in other understudied areas in breast cancer screening impacting other marginalized populations.

Dependability

Dependability is a crucial element of trustworthiness. It assesses data consistency and replication of research findings (Nyirenda et al., 2020). It involves asking questions such as "Do the findings consistently match the data collected?" (Daniel, 2019). Dependability can also be established using constant comparative analysis, comparing the findings against the actual data recording. Also, participants' responses are coded into initial emergent themes and are subject to constant revisiting and revision until no new codes emerge (McGonagle et al., 2022). Dependability in qualitative research is often assessed by examining the researcher's methods, such as the number of interviews, observations, or other data collection processes used. The researcher must also consider the context of the data collection, such as the environment of the interviews, the population being studied, and the research questions being asked (see Daniel, 2019).

Confirmability

Confirmability is another critical element of trustworthiness. It involves assessing the biases of the research process and findings (Nyirenda et al., 2020). Confirmability is essential to ensure that the data collected can be trusted and is not biased or distorted. To achieve this, the researcher must demonstrate that their data sources, analysis methods, and interpretations are consistent (Daniel, 2019). I evaluated the data carefully and ensured that the transcripts and recordings of the participant's responses are constantly compared to codes and derived themes emerging to show the believability and credibility of the findings.

Reflexivity

Reflexivity means being forthcoming and acknowledging one's biases during the research process (Nyirenda et al., 2020). Nyirenda and colleagues indicated that reflexivity includes the researcher's behavior during the participant's responses, data collection, interpretation, analysis, and presentation of findings. I did a self-reflection evaluation via journal or diary throughout the study process to help minimize potential biases.

Ethical Procedures

Ethical procedures are also essential to ensure trustworthiness. It involves following ethical guidelines when conducting research, such as obtaining informed consent from participants, respecting participants' privacy, and ensuring that participants are not harmed and that the research process is fair and unbiased (Korstjens & Moser, 2018). Ethical guidelines ensure that the data collected is valid, reliable, and not compromised by ethical lapses. In this study, the ethical procedures will include informed consent, confidentiality, respect for privacy, respect for cultures, risk assessment, participants' protection, and disclosure of results (Hilty et al., 2020). I was approved by the IRA and was given this number, IRB# 09-19-23-1020669, to collect data. I visited the various organizations frequented by Cameroonian women and give them flyers with the instructions to email me if they want to volunteer to be participants. I informed the participants through email or phone that participation in the study is voluntary and will ensure that it will not pose any risks. As the primary researcher with no power or authority over the participants, I established and followed ethical procedures throughout the research process to ensure that data retrieval is locked in a secure cabinet to maintain privacy and confidentiality.

Demographic data such as age, education, income, date of birth, employment status, and married status were collected. Personal information identifying the participants, such as social security and driver's license, was not collected. The participants were informed that the transcripts with redacted identifiers will be shared with my committee faculty members, including my analysis. The participants were informed that the transcripts will contain redacted identifiers with the letter "P" and a numerical number assigned to each participant, along with their direct quotes included in the findings. I informed the participants that no incentive will be given for participation in this study. The data for this study will be kept in a safe and secure cabinet and destroyed in five years when the study is completed. By adhering to these ethical procedures, researchers can show that their research is conducted ethically, respecting the participants' rights, dignity, and well-being (Hilty et al., 2020).

Summary

This study explored Cameroonian women's experiences in seeking breast cancer screening and prevention services. I plan to use qualitative phenomenological methodology and design for data collection. A semistructured interview with open-ended questions, and purposeful snowball sampling was used. I used Microsoft Word to organize the data and I manually coded the data to obtain themes from the interview.

Chapter 4 will give details of the research setting and participants' demographics, and data analysis results will be presented after this proposal has been approved.

Chapter 4: Results

Introduction

Breast cancer is the second leading cause of cancer death after lung cancer in women in the United States and is the leading cause of cancer death in Black and other minority women like Hispanics (ACS, 2022). African American women with breast cancer suffer healthcare disparities that adversely affect their well-being, which has also shown that the mortality rates among this ethnic group are alarming compared to other racial/ethnic groups (Hamilton et al., 2023). According to Lovejoy et al. (2023), it was estimated that in 2022, 42,250 women in the United States were expected to die from breast cancer; in that estimate, 6,800 Black women were expected to die in 2022. The breast cancer death rate among Black women keeps increasing, same as in the previous years, because screening rates are not growing and too few women receive timely and high-quality treatment after they are diagnosed with breast cancer (ACS, 2022).

This phenological study was used to explore the Cameroonian experiences in seeking breast cancer screening and preventive services. I interviewed Cameroonian women I met through their social organization, church congregation, and snowball sampling. One primary research question guided the interview with four probing questions: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services? The two theoretical foundations used in this study were (a) Penchasky and Thomas's access theory and (b) SEM, which also helped to explore and understand the experiences of the participants. In this chapter, I discussed the research setting, participant demographics, data collection, data analysis, evidence of trustworthiness, and summary.

Setting

I used a few private rooms in a coffee shop and some private rooms in a library near the participant's locations where no one else could hear the conversation. I selected the participants based on the inclusion criteria in the flyers. Many participants received flyers from their social and church organization leaders, who helped distribute them on my behalf. A few participants contacted me to send the flyers to participate in my study because friends referred them. All participants preferred face-to-face audio tape recording interviews instead of Zoom conferencing.

Demographics

I created the demographic questions used during the interview sessions with individual participants (see Appendix A). I interviewed nine Cameroonian women between the ages of 35 to 76 years old. Four participants aged 35 years and below received the flyers. They wanted to participate in the study but did not because they indicated they had never had a breast cancer screening and could not share any experiences that could help with my research. Many participants were Maryland residents, and a few were from Delaware and northern Virginia (see Table 1).

Table 1

Participant Demographics

Demographics	**Participants' responses**
Age	
20-29	0
30-39	1
40-49	3
50-59	2
60-69	2
70-79	1
Prefer not to say	0
Educational level	
Some high school	0
High school	1
Bachelor’s degree	5
Master’s degree	2
PhD or higher	0
Prefer not to say	1
Income level	
Less than $25,000	0
$25,000-$50,000	0
$50,000-$100,000	4
$100,000-$200,000	2
More than $200,000	2
Prefer not to say	1
Employment status	
Full-time	7
Part-time	7
Retired	7
Unemployed	0
Prefer not to say	0
Marital status	
Married	2
Single	5
Divorced	1
Widow	1
Prefer not to say	**0**

Data Collection

Participants who met inclusion criteria were informed that informed consent would be obtained through email before scheduling the interview, and they were asked to read, agree, and ask questions before emailing it back with the words "I consent." I started data collection on September 30, 2023, because of a few delays in meeting the approval of the Institutional Review Board (IRB). The data collection ended on November 1, 2023, when data saturation was met at the nineth participant. I used semistructured face-to-face interviews with each participant. I used journaling and an audio recording app subscribed to through my phone to collect the data. I brought an extra phone charger because during my interview with the first participant (P1), the phone battery was low, and the charger was old and slowed charging the phone quickly, which created a delay. Also, during my first interview with P1, we had to pause and start the interview again because the librarian mistakenly walked into the private room where the interview was. Even though the door was closed for privacy, the door was not locked.

I also encountered delays because some participants postponed interview meetings because of time issues.

The interviews with each participant lasted 30 to 60 minutes. Before starting the interviews, each participant was informed that they may experience stress or fatigue in completing the study. However, participants were told they could skip any item or completely withdraw from the study at any point. I informed each participant that pseudonyms would be used during the interviews by assigning them P with a number, for example, P1, to indicate their names. I used an interview guide with probing questions that I created to gain in-depth information from the participants (see Table 1). Demographic questions, which I created, were included during the interview session (see Appendix A). Overall, the interviews went well because I used excellent listening skills, which helped develop rapport and trust with all the participants and obtained rich data. According to Lavee and Itzchakov (2023), good listening skills help establish a connection with the participants to share their inner life in a way that makes them feel they are not being judged and are being heard, which could make them divulge more information about their experiences and beliefs that might be less socially accepted.

Data Analysis

The approach I used in the data analysis was Braun and Clark's (2006) 6-step IPA. I transcribed the recorded audio tape from each participant using a Microsoft Word transcription. The first step was getting familiarized with the data collected, which starts by immersing oneself in the data by repeatedly reading the data and searching for meaning and related patterns to gain depth and breadth of the content (see Braun & Clark, 2006). I read and reread the transcript many times, including going back and listening to the recording, comparing it to transcripts, and editing the transcripts to ensure they reflected the actual words of each participant in the audio recording (see Appendix B). The next step was to do initial coding, in which I manually highlighted data segments with written notes, which helped to identify patterns.

The next step was searching for themes, in which I manually highlighted sections in each transcript to identify a series of codes from the participant's words, and these converging codes helped to create sub-themes and themes. The fourth step in Braun and Clark's (2006) thematic analysis involved reviewing the themes, which are advised to be done in two levels. In the first level, I realized that a few themes formed a coherent pattern. I decided to discard them and use many valuable themes, which helped me move to level two to create a thematic map. The fifth step was defining and naming themes. Braun and Clark suggested that each theme, named and defined, must have detailed analysis and broader overall information about the data concerning the research question or questions.

I identified and named each theme and subtheme from the main research question and probing questions. The in vivo codes retrieved from the participants' responses were mode of transport, travel time, parking finance, insurance, cost, income, wait time, appointment, referral, fear, communication, attitude, privacy, pain, culture, religion, awareness, and information (see Tables 2 to 6 below). The last step in IPA was producing the report. I presented the findings based on these themes: (a) accessibility to screening services, (b) affordability for screening services, (c) availability to address screening services, (d) acceptability to cope and address screening services, and (e) awareness to address screening services. These themes are from the participants' stories using the research question in their own words to ensure the merit and validity of data analysis (see Braun & Clark, 2006).

Two discrepant cases were part of this study, and one was factored into the data analysis. The first discrepant case was P10, in her mid-30s, who was scheduled to be interviewed and arrived late, refusing to be rescheduled for another interview. During the interview session, this participant's nonverbal body language indicated she was not authentic and was uninterested in answering the research questions, and the data analysis showed a little emergent pattern that could be helpful for this study. However, the discrepant case was factored into this study to strengthen the argument that there is a need for further research to focus more effort on encouraging and addressing breast cancer screening guidelines concerning younger Black women who could also be at a higher risk of having breast cancer due to inherited genetic predisposition.

The second discrepant case was interviewed but passed away a few weeks ago from an undisclosed illness. This participant informed her family about her involvement in my research, and to respect her family's wishes, I had to delete her recorded information. The information obtained from this deceased participant helped to strengthen this study's finding that the lack of breast cancer screening awareness in their home country of origin, Cameroon, is a need for concern for researchers to increase research on breast cancer screening experiences among this segment of the population.

Evidence of Trustworthiness

Evidence of trustworthiness in qualitative research has achieved recognition and is increasing in popularity based on the ability to capture meanings in phenomena and explore personal experiences. A rigorous qualitative study must demonstrate the four characteristics to provide reliable and valid evidence: credibility, transferability, dependability, and confirmability (Adler, 2022).

Credibility

Credibility is the most integral quality of a qualitative study because it implies a repetitive approach is applied in analyzing participants' shared experiences, and the researcher interprets their responses accurately based on the participant's own words without bias (Brown, 2022). I built trust with the participants and used persistent observation and open-ended questions to get more detailed data, which enabled me to reach data saturation to help promote the study's credibility.

Transferability

Transferability helps provide enough information about a study's sample, data collection, and data analysis processes so that readers can then critically evaluate whether the findings apply to similar or other contexts (Makel et al., 2022). To ensure transferability, I clearly explained the participants' experiences from the data collected. This included their demographic information, the number of participants, and the data collection method. Therefore, the readers can determine if this study's findings are applicable in their settings.

Dependability

Dependability enhances the readers' confidence that the findings are reliable and limits the perception of bias (Stahl & King, 2020). I applied reflex auditing to exclude data from one of the participants I interviewed, who had breast cancer and was at the terminal stage of her illness. She did not inform me and passed away a few weeks ago. The decision was made to exclude this participant because every time I read her transcript, I became emotional, and it brought back the memory of losing three of my family members from breast cancer. Stahl and King (2020) indicated that reflexive auditing or describing the researcher's involvement in the decisions made in the research processes is most characteristic of post-positive research, and it is undoubtedly an essential requirement for an acceptable dissertation, research manuscript, or funded technical report. The verbatim transcriptions from each participant were compared with my field notes, including the audio recorders, to ensure consistency and accuracy, thus bolstering the study's dependability.

Confirmability

Confirmability of the study findings is the ultimate indicator of trustworthiness as it shows that other researchers can corroborate the findings, suggesting the researcher did not influence them (Brown, 2022). I used a constant comparative method throughout the data analysis process to manually retrieve codes from the participants' actual words, which helped develop subthemes and themes. Stahl and King (2020) contended that researchers should ensure precision and accuracy through noninvolvement and ensuring minor researcher contamination of the natural environment. I also used reflexive journals with each participant, which helped me understand my biases. The researcher should also aim to understand their biases to reduce their impact on the study. Best practice dictates using reflexive journals, in which the researcher documents their decision making and exposes their related values and beliefs (Stahl & King, 2020).

Results

In this section, I used one central research question with four probing questions to explore the experiences of Cameroonian women in seeking breast cancer screening and preventive services. The themes identified are supported by the participants' verbatim responses to the central research question and probing questions: (a) accessibility to screening services, (b) affordability for screening services, (c) availability to address screening services, (e) acceptability to cope and address screening services., and (e) awareness to address screening services. I have presented the themes and subthemes from the codes retrieved from the participants' exact words (see Tables 2-6). The research question was as follows: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services?

Theme 1: Accessibility to Screening Services

I started by asking each participant to describe their overall experiences gaining access to breast screening services. Many participants expressed different challenges, but many felt that taking public transport was challenging since they did not own cars or could not drive. Also, especially getting up early and waiting for public transportation in unsafe neighborhoods. Two participants indicated that the bus schedules needed to be more consistent. Others with limited sources of income had to take Uber to meet their appointment time, including those who could drive and needed help locating the screening facility and parking (see Table 2).

Table 2

Theme 1 and Participants' Responses

Code	Categories	Theme	Participants responses
Mode of transportation Travel time Parking	Lack of transportation Longer travel time	Accessibility to screening services	P1 "I took the bus I was not used to train at that time. So to get there was tough for me. When I went to DC I had to get somebody to help me to redirect me, to get to the location. So it was too much." P2 "I have to take public transport the bus. OK. It will take about two hours. Really early Oh, wow. to get there." P4 "Parking space is not easy because when you go into the parking, it's all closed up. The parking is small there sometimes."

Code	Categories	Theme	Participants responses
			P9 “I took Uber there even though I didn't have money. What can I do”

Theme 2: Affordability for Breast Cancer Screening Services

Theme 2 was affordability because when I asked four probing questions, many of the participants who were cancer survivors had no insurance and did not get timely breast cancer screening. P6 stated that she lost her elder sister from breast cancer because of a lack of insurance, and she too was diagnosed with breast cancer and had to beg her job manager and the community to help her pay for her cancer treatment (see Table 3).

Table 3

Theme 2 and Participants' Responses

Code	Categories	Theme	Participants responses
Finance Insurance Cost Income	lack of insurance Co-pay too expensive Financial burden	Affordability for breast cancer screening services	P1 “It is an expensive procedure because my insurance is not like full coverage.” P 4 “The insurance is too much, I complained last time that they increased my insurance and they said OK then I

Code	Categories	Theme	Participants responses
			should come in and write a comment.” P5 “I did not have a job like a full time job, so I kind of stopped screening.” P6 “I was doing night shift and I didn't have insurance for those agencies that set you up. So I called my manager and I told her this is the problem I'm having and I don't have any insurance.” P9 In my early no. Say my late, late 30s, late 40s I was in and out of jobs so I did not have insurance.”

Theme 3: Availability to Address Screening Services

Four participants indicated that making an appointment was challenging since they did not have suitable transportation means and also had to work. Even if they had an appointment, the wait time was also unbearable. P6 started when she had some noticeable changes in her breasts and called a breast cancer screening facility to see if they could see her but was told numerous times that she would need to make an appointment, which could take months (see Table 4).

Table 4

Theme 3 and Participants' Responses

Code	Categories	Theme	Participants responses
Wait time Appointment Referral	Delayed in screening Longer wait time	Availability to address screening services	P1 “if you have traffic and you stop for another one hour or so and you go there late, they will not take you in. You have to risk it. So it's another trouble to reschedule again.” P2 “There are times you come and you wait. You wait and begin to wonder whether what is the reason of giving you an appointment?” P4 “It is very challenging. Sometimes you go to the hospital. First of all you have to wait for so long. There are always a lot of patients.” P6 “I had like pimple like orange peel type skin on my breast with a lump I just drove over there and they told me that they could not take me without an appointment.” P8 I call and tell them that I'm coming

Code	Categories	Theme	Participants responses
			because they are always book for some reason.”

Theme 4: Acceptability to Cope and Address Screening Services

The subthemes are fear of pain, interaction with healthcare providers, fear of the unknown and personal beliefs described by the participants. The pain experienced during mammography screening was a primary concern for many of the participants. Five participants hesitated to get a mammogram screening, including follow-up screening. Personal belief, pain, and the fear of the unknown was also a significant concern because of their cultural background of not waiting to know if they had cancer. P2 indicated that some staff were not friendly and uncomfortable opening up to ask pertinent questions concerning her health (see Table 5).

Table 5

Theme 4 and Participants' Responses

Code	Categories	Theme	Participants responses
Fear Communication Attitude Privacy Pain Culture Religion	Fear of the unknown Pain from screening Communication and attitude of healthcare provider Cultural and Religious beliefs	Acceptability to cope and address screening services	P1 “I went for a visit with Kaiser, which is my insurance. So when I went there from one thing they asked me if I would like to go in for the mammogram. So from there, I say I hesitated a little bit

Code	Categories	Theme	Participants responses
			because of the previous experience, the discomfort and the pain going through that procedure.” P3” Culturally, just going for the mammogram and taking off your clothes or somebody to be squeezing your breast and all that. That is a big, big deal for us culturally where we come from.” P4 “Sometimes the nurse has to leave it and go and bring the doctor so that they can, like press me to the machine machine and it's really painful, painful. When I come back that day, I'm not fine.” P5 “Most fear every year was how I was going to go through the machine.” P6 “This first set of oncologists I had a lot of problems with them because I had the cancer on my right breast, but because of my family history, I

Code	Categories	Theme	Participants responses
			wanted to have a bilateral mastectomy, take both breasts out. But this oncologist thought I was being too aggressive, too drastic. Like, why do you want to take it off?" P7 "I'm approaching the age where I need to get breast screening. I have not done it yet." (45 years old) P8 "The pain is really terrible. After the you squeeze your breasts, and sometimes it depends on the technician, so some of them are so aggressive. Yeah, some of them." "He always asked me to. Oh, your weight is too much." P9 I refuse any chemo or radiation therapy because of my personal belief and I accepted pills as I took tamoxifen for eight years." P2 "Sometimes they are rude (healthcare ssaff)." "There are many things people don't like discussing like this cancer thing

Code	Categories	Theme	Participants responses
			is like a taboo. Like what if you are a patient or let's say you don't know that you have it. You visit a doctor, they say you have cancer. It's like a taboo. You know, you feel that this is death sentence.”

Theme 5: Awareness to Address Screening Services

Theme 5 described participants' experiences of their experiences in their home country, Cameroon, because some of the participants indicated that they were not sure if their breast cancer started in Cameroon before being diagnosed in the United States. They had the experiences or knew someone who had also experienced challenges in breast cancer screening in Cameroon. The participants wanted to see something done to address this. They gave me some recommendations because poor cancer screening facilities and lack of awareness were significant problems in Cameroon and may have contributed to a high rate of cancer death among Cameroonian women.

Table 6

Theme 5 and Participants' Responses

Code	Categories	Theme	Participants responses
Awareness Information	Lack of screening information and awareness	Awareness to address screening services	P1 "I wish we even knew about this. I wish I knew about this before coming here, because that is why you see, you have so many breast cancer patients in Cameroon." P2 "Many Cameroonian women die of breast cancer, so many, many, so many. Because of lack of screening. No machines, no equipment. Nobody even talks about it in the hospital." P3 "Coming from Cameroon, I will say Is for the rich. healthcare fee, just paying for a mammogram, even chemo, it costs so much money that the majority of the women do not even there's nothing for mammogram." P4 "The system in Cameroon is really deplorable. The screening facilities are not even available.

Code	Categories	Theme	Participants responses
			No knowledge, no sensitization." P7 "Challenges might be financial in terms of getting the appropriate care for breast cancer screening." P8 "You might sit there and even die of breast cancer and nobody will know that you have breast cancer."

Summary

The purpose of the was to explore the experiences of Cameroonian women in seeking breast cancer screening and preventive services. The participants were recruited using a flyer, and after signing informed consent via email, I conducted semistructured face-to-face interviews at a location suitable for the ten participants, with one participant's data that was collected excluded from this study for personal reasons and respect to her family. I conducted coding and thematic analysis, and five themes and subthemes were identified from the primary research question and probing questions. The subthemes identified showed that many of the participants had experienced some challenges in seeking breast cancer screening and preventive services. They expressed their concerns that even though breast cancer screening and preventive services are available in the US as compared to their country of origin, Cameroon, accessing these services was hampered by lack of transport, location, insurance, pain from mammogram machines, fear of the unknown, and the roles of healthcare providers.

The five themes used to describe the experiences of Cameroonian women in seeking breast cancer screening and preventive services were (a) accessibility in screening, (b) affordability for breast cancer screening services, (c) availability to address screening services, (d) acceptability to cope and address screening services, and (e) awareness to address screening services. In Chapter 5, I will discuss the findings from the participants' analysis, including study limitations, recommendations, implications for social change, and conclusions.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Black women have less chance of being screened for breast cancer compared to White women and have limited opportunities to benefit from screening and genetic services (Makurumidze et al., 2022). I used a phenomenological approach in this study to uncover these participants' experiences in seeking breast cancer screening and preventive services. Shorey and Ng (2022) stated that this method has been receiving significant recognition in healthcare and nursing research, as it seeks to understand a natural phenomenon through the views and experiences of participants.

The primary research question was as follows: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services.? I used two conceptual frameworks for this study: Penchansky and Thomas's access theory and the SEM model. The rationale for using these two conceptual frameworks was that it could help me build a connection and understand how access, individual, and other environmental factors can majorly impact these participants in gaining breast cancer screening and preventive services. I analyzed data from the nine participants and retrieved five themes. In this chapter, I discuss the interpretation of the findings of this study and suggest recommendations, including limitations of the study and implications for potential social change.

Interpretation of Findings

Equal and easy access to screening for breast cancer has been shown to be an essential part of early diagnosis and treatment. I conducted constant comparative analysis and thematic analysis, and I retrieved five themes: (a) accessibility to breast screening, (b) affordability for breast cancer screening services, (c) availability to address breast screening services, (e) acceptability to cope with and address screening services, and (e) awareness to address breast screening services.

I used one primary research question: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services? I also used probing and interview guide questions. I identified several codes from the participants' responses: mode of transport, travel time, parking finance, insurance, cost, income, wait time, appointment, referral, fear, communication, attitude, privacy, pain, culture, religion, awareness, and information subthemes. Subthemes were determined to be included in each theme. I interpreted the findings in this current study by comparing them with several existing published studies, thus justifying the use of this study for future research references.

Accessibility to Breast Screening

The first probing question asked about participants’ experiences in scheduling mammogram screenings. Many participants indicated that the most common questions that came to mind before making their appointment were transportation issues because some of them could not drive or rely on public transportation. P2 reported, "I have to take public transport the bus. OK. It will take about two hours really early." P9 shared, "I refused any chemo or radiation therapy because of my personal belief, and I accepted pills as I took tamoxifen for 8 years. Oh, wow to get there." Cochran et al. (2022) indicated that lack of transportation creates obstacles to health care and is known to result in delayed and missed appointments, including getting access to medications. These authors also confirmed that 5.8 million people in the United States delayed medical care or did not get care in 2017 because they did not have transportation. The lack of transportation is a significant challenge in neighborhoods with little or no private automobile availability, including dependency on public transportation with substandard reliability. In these situations, meeting timely breast cancer screening appointments becomes difficult, leading to noncompliance (Oluyede et al., 2022). As indicated in Chapter 2, Accessing breast cancer screening is also severe in rural locations and makes it challenging and impossible for Black women to get the healthcare they need (Aleshire et al., 2020).

In Chapter 2, I presented that accessibility to healthcare refers to a patient's ease of physical access to the healthcare system. Aleshire et al. (2020) stated that accessibility a qualitative phenomenological study Rose et al. (2022) claimed that they uncovered that the cancer survivors and professional participants in their study mentioned transportation issues as a significant obstacle to getting therapy. These authors noted that this is especially concerning because prompt therapy is significant to the effectiveness of breast cancer treatment. Their studies and findings are consistent with the present study's findings that improving transportation accessibility is a crucial component of a holistic strategy to address this issue, especially in neglected and underprivileged areas.

Affordability for Breast Cancer Screening Services

The second probing question was as follows: Please tell me how you pay and the means of transportation for mammography screening. Many of the participants, especially those who were cancer survivors, indicated that another significant obstacle to breast cancer screening was not having insurance, which, according to them, delayed the timely discovery of breast cancer. P5 stated, "I did not have a job like a full-time job, so I kind of stopped screening." Markey et al. (2022) noted that lack of insurance has continually been associated with reduced healthcare access and inadequate quality of care and, ultimately, leads to worse outcomes for nearly all medical conditions, including cancer. Conversely, the improvement of early detection has been shown to improve outcomes from breast cancer diagnosis (Ponce-Chazarri et al., 2023). The impact of socioeconomic status makes it more challenging for women to pay for preventative healthcare, especially during the outbreak of COVID-19 (Mani et al., 2023). On the contrary, the COVID-19 pandemic also created innovation that has redefined access to health care. Telehealth emerged as a significant force during the pandemic as insurers and the government changed reimbursement and other policies to make it easier for patients and providers to use existing virtual solutions (Oluyede et al., 2022).

Availability to Address Breast Screening Services

Longer wait time was expressed by the participants as one of the challenges experienced when assessing the availability of breast cancer screening and other preventive services, especially during the COVID-19 pandemic. Sturz and Boughey (2023) examined the impact the COVID-19 pandemic had on patients and the healthcare system. They found that a significant barrier to early breast cancer screenings was a significant strain the COVID-19 pandemic had on healthcare facilities, resulting in prolonged wait periods for appointments, screening, and other preventive services. P4 stated, "It is very challenging sometimes you go to the hospital first of all you have to wait for so long. There are always a lot of patients."

COVID-19 frequently causes delays in receiving necessary services, delaying women from seeking routine screenings because of the inconvenience of the high volume of patients it places on staff shortages and lengthy wait times for screening (Vijayaraghavan & Guemba, 2023). The delay in getting timely breast cancer screening increases the risk of receiving a late-stage diagnosis, by which time cancer may have progressed considerably, and treatment effectiveness may be compromised (Vijayaraghavan & Guemba, 2023). Long wait periods are a barrier to proactive health care for individuals and a factor in more significant systemic issues related to the high incidence of advanced-stage breast cancer in communities (Makurumidze et al., 2022). Some creative approaches can be implemented to address this problem, including better screening and treatment modalities for healthcare facilities and the deployment of telehealth measures to lessen the strain on overburdened medical facilities (Sturz & Boughey, 2023). Community outreach programs can be created to address structural challenges like flexible scheduling and expanding appointments through online registration to diverse neighborhoods (Makurumidze et al., 2022).

Acceptability to Cope with and Address Screening Services

As indicated in Chapter 2, many Black women historically have a fear of the unknown because of their cultural background, which is a significant barrier to breast cancer screening (Aleshire et al., 2020). Their reluctance to obtain preventive healthcare measures, especially breast cancer screening, can be attributed to numerous factors, such as a lack of knowledge, fear of pain, fear of personal beliefs, and not necessarily cancer fatalism (Williams & Fu, 2023). Compared with this current study's findings, Khullar (2019) and O'Kane et al. (2021) acknowledged that this fear can be blamed on a historical context of medical injustices that have predominately negatively impacted minority groups. P9 reported, "I refuse any chemo or radiation therapy because of my personal belief, and I accepted pills as I took tamoxifen for 8 years." A previous study indicated that cultural factors such as spirituality, the misconception on the susceptibility of breast cancer, cultural beliefs, and views, as well as medical mistrust are more prominent in Black women when deciding about breast cancer screening, diagnosis, and treatment options (Yedjou et al., 2022). Yedjou et al. (2022) acknowledged that contrary to their previous statement, spirituality can strongly influence how many Black women manage their health condition to optimize a better outcome.

The findings uncovered from this current study confirmed with study findings by Mitchell et al. (2022) and Penner et al. (2016) that one of the leading causes of Black women's lower breast cancer screening rates is the implicit racial bias from healthcare providers. Their study's findings indicated that there is a noticeable difference in the level of care that Black women receive compared to White women because they frequently do not have equitable access to high-quality healthcare. The discrepancies can be observed in multiple domains, such as the accessibility of screening resources to oncologists and the overall healthcare results (Penner et al., 2022). A few participants in the current study indicated they felt their oncologists were not listening or paid less attention to their medical questions and concerns. P6 indicated, "this first set of oncologists, I had a lot of problems with them because I had the cancer on my right breast, but because of my family history, I wanted to have a bilateral mastectomy, take both breasts out, but this oncologist thought I was being too aggressive, too drastic. Like, why do you want to take it off."

Many of the participants also expressed that they have encountered pain during and after mammogram screening as some of the factors that make them hesitant when getting timely mammograms. Montoro et al. (2023) indicated that pain experience is an essential factor influencing subsequent mammogram attendance. P8 reported, "The pain is really terrible after they squeeze your breasts, and sometimes it depends on the technician, so some of them are so aggressive, yes, some of them. He always asked me to Oh, your weight is too much."

Awareness to Address Breast Screening Services

In contrast, this current study's findings also showed that lack of breast cancer awareness is also prominent in the country of origin. P4 reported, "The system in Cameroon is really deplorable the screening facilities are not even available no knowledge, no sensitization." As noted in Chapter 2, breast cancer screening awareness remains lower among Blacks due to misconceptions regarding breast cancer and the benefit of timely or regular screening (Yedjou et al., 2019). Black women may turn to the belief that they have lower breast cancer risks than White women because of misinformation, even though they have higher mortality rates when diagnosed. This belief has a higher impact on reducing mammography screening and breast cancer treatment (Bamidele et al., 2017; Marcu et al., 2022). This lack of awareness includes not knowing the importance of regular screening and compliance with seeking healthcare to improve treatment outcomes (Yedjou et al., 2019). Also, because Black women believe mammograms could involve unnecessary invasive procedures like needles or syringes, it can lead to total avoidance of breast cancer screening (Aleshire et al., 2020).

Because accessibility to breast cancer screening was one of the issues impacting the participants in this study, it was essential to address this problem using Penchansky and Thomas's access theory as a framework to analyze and interpret this study's findings. This theory identified the accessibility of health care as a significant concern and suggested the five aspects of accessible care: affordability, availability, accessibility, accommodation, and acceptability (Retrouvey et al., 2019). Affordability was used in this study to analyze the participant's ability to pay for the services, such as mammogram fees and copayments. The findings indicated that the study's participants expressed challenges in paying for screening services or lacking insurance coverage to meet timely screening guidelines.

Availability in Penchansky and Thomas's access theory explains the extent to which the client's needs are met by the provider's requisite resources, including qualified staff and technology. In analyzing the data, P1 indicated that "if you have traffic and you stop for another one hour or so and you go there late, they will not take you in. You have to risk it. So it's another trouble to reschedule again." P2 indicated, "There are times you come and you wait. You wait and begin to wonder whether what is the reason of giving you an appointment?" The interpretation shows that some of the participants encountered challenges getting timely appointments for their breast cancer screening appointments. Accessibility is associated with the client's ability to reach the provider's location physically. The data collected from the study's participants showed that many of them had to rely on public transportation, which also created challenges going in to see their healthcare provider or access screening services. As indicated by the participants, this created many challenges because some had to leave their homes early to take multiple forms of public transportation in an unsafe neighborhood.

Penchansky and Thomas's access theory states that accommodation relates to the provider's organizational processes and ability to meet the client's preferences and constraints (as cited in Retrouvey et al., 2019). The data analysis and interpretation also showed a lack of accommodation to meet the participant's needs. Acceptability is the client's and provider's level of feeling comfortable with each other, including age, ethnicity, social class, and gender (Retrouvey et al., 2019). A few participants expressed their concerns about meeting complaints with breast cancer screening. For example, P5 indicated, "Most fear every year was how I was going to go through the machine." P9 indicated, "I refuse any chemo or radiation therapy because of my personal belief and I accepted pills as I took tamoxifen for 8 years." The responses from these participants indicated that personal beliefs could also affect getting recommended breast cancer screening services. Though the original accessibility theory consisted of five domains, its later modification by Retrouvey et al. (2019) offers the sixth domain – awareness, that is, the patient's knowledge about the services and indications for their applicability.

The SEM by Bronfenbrenner was one of the theoretical frameworks used to analyze and interpret this study's findings. Breast cancer screening can also be reviewed from the perspective of the social ecology theory because it describes and justifies the correlations between environmental and personal factors. Consequently, by understanding people's interactions and responses to the surrounding environments, the implications of those correlations on society and the environment, in general, can be identified. Adverse childhood experiences, including obesity and physical inactivity, are directly correlated with cancer (Lopez et al., 2021). The SEM applies to deriving breast cancer prevention strategies and interventions. For instance, they can target the alleviation of cancer-associated risk factors, including smoking, lifestyle-related risks, and cancer-associated infections (Akinyemiju et al., 2022). These modifiable risk factors for cancer include insufficient physical activity, excessive alcohol consumption, unhealthy eating, and obesity. The non-modifiable environmental risk factors for cancer include excessive sun exposure, exposure to cancerogenic agents at the workplace, outdoor air pollution, and indoor air pollution by cooking-provoked toxic air pollutants.

On the individual level, cancer prevention is associated with the need for lifestyle changes, including giving up smoking, maintaining a healthy weight, getting all necessary vaccinations, and engaging in sustainable strategies. On the community level, people should raise their awareness about breast cancer and acknowledge how the risk factors contribute to cancer development (Akinyemiju et al., 2022). The secondary preventative strategies include enhanced awareness about cancer screening options, establishing a check-up culture, and advocating for affordable and accessible diagnostic screening for the population (Akinyemiju et al., 2022). Lastly, suppose the interventions for breast cancer prevention, screening, and treatment are derived using a combination of the socio-ecological theory and Penchansky and Thomas access theory. In that case, it will likely result in improved access, full-scale treatment, and better breast cancer prevention.

Limitations of the Study

The potential limitations of trustworthiness from this study include using email to obtain informed consent as part of the recruitment process. A few participants had challenges navigating their emails and responding to the informed consent. Technology literacy could have arisen as one of the challenges. Even though the informed consent was received, I made a follow-up phone call to ensure the participants did not seek outside help to complete the informed consent process, thus strengthening the evidence of the trustworthiness of this study. There were also limitations on published studies done on Cameroonian women concerning breast cancer screening experiences. I used other studies published on Black and African women's breast cancer screening experiences to justify this study's credibility.

I may have interpreted some of the participants' responses incorrectly since no follow-up was made to address concerns or ask for clarifications. However, a constant comparative analysis was used to check the participants' interview transcripts to ensure accuracy. To guarantee credibility, I conducted in-depth interviews with a semi-structured questions guide and follow-up probing questions to gather thick, rich, and detailed descriptions of individual experiences in seeking breast cancer screening.

I used purposive sampling to recruit participants from a few organizations. Although inclusion and exclusion criteria were used, this sampling technique may have introduced some recruitment biases in choosing these particular organizations since most of these participants have had or know someone who has experienced some form of breast cancer screening in the past. Nevertheless, the participants were recruited and incorporated into this study from different demographic age groups, employment status, education levels, and income levels, enhancing this study's trustworthiness.

I interviewed eleven Cameroonian women in the Mid-Atlantic region in the US for this study. Data saturation was achieved at the seventh participant. This sample size is acceptable as long as data saturation is met to be efficient for qualitative research (Hennink & Kaiser, 2022a). I included thick, rich, contextual information described by the participants to promote transferability. Lastly, I analyzed the data to obtain codes and determine subthemes and the main themes without getting help or seconder coders to assist. It could be viewed as a potential limitation. However, I included detailed explanations and tables to show how this study's significant themes emerged, thus establishing confirmability.

Recommendations

This study's methodology and design uncovered the complex challenges the participants experienced in accessing breast cancer screening and preventive services. As indicated in Chapter 2, the literature reviewed strengthened the argument that this qualitative approach is recommended for further research to gain information that can bring more awareness to this phenomenon. This study revealed that one of the participants in her early thirties with a family history of breast cancer was unsure of what breast cancer screening guidelines were. Studies have indicated that breast cancer screening guidelines have some inconsistencies regarding the age that is appropriate to start early screening. Also, healthcare providers who are following national organization recommendations for screening mammography may be putting Black women at younger ages at a disadvantage because certain types of cancer affect Black women at younger ages compared to White women.

There are limited studies that address breast cancer screening impacting younger women, and also most breast cancer studies on Black women lumped them together as one race, which is creating less awareness of the severity of this phenomenon. Further research is recommended to create breast cancer screening guidelines that are universal and also target younger Black women with a known family background of breast cancer and who may also belong to a segment of the population who have unequal access to breast cancer screening services. It could help improve early detection and screening knowledge. I recommend that there should be appropriate annual breast cancer screening programs for Black women, including younger adults with a known family history of breast cancer and BRCA1 carriers. It could improve their chances of getting an early diagnosis and appropriate counseling for prophylactic treatment like bilateral mastectomy. Further research is needed to target Black women from various ethnic backgrounds, settings, and more extensive and diverse age groups. It could help enhance awareness, supplemental screening, and improve outcomes.

Implications

The findings and implications include the social change, theoretical, empirical, and methodological, including practice recommendations, which are within the scope of this phenomenological study and are concurrent with other research studies.

Implications for Social Change

The participants expressed concerns about many challenges in getting breast cancer screening, including treatment for cancer diagnoses. Social change—such as diverse training programs for healthcare professionals, increasing minority providers in health facilities, and eliminating racial injustice in healthcare delivery—is necessary to address this complex issue. Black women can be provided equal access to breast cancer screening and other preventive services if systemic disparities are addressed, and healthcare professionals' abilities are improved.

The participants indicated that breast cancer screening facilities and programs were lacking in their country of origin, Cameroon, and fear of pain and lack of insurance were some of the contributing factors that made them seek breast cancer screening late. These factors had a significant role in contributing to many of them being diagnosed with cancer and having to go through many health challenges, which also impacted their support system and loved ones. The findings from this study focus on addressing how disparities in breast cancer screening can affect health outcomes and financial burdens on the healthcare system. So, researchers must partner with the Black community in the US and the Cameroon government to share their findings, which can help facilitate trust, encourage insurance companies to fund breast cancer screening at affordable rates or free of charge and improve technology like telehealth for easy and timely breast cancer screening access in underserved areas.

Theoretical, Empirical, and Methodological Implications

The theoretical implications indicated that using Penchansky and Thomas's access theory is suitable because it has helped uncover some challenges the participants faced in seeking breast cancer screening and preventive services. Black women continue to experience a disparity in breast cancer screening and the vast majority of mortality from breast cancer compared with the majority of other races in the United States (Aleshire et al., 2021). As discussed in Chapter 2, the findings in this study support the application of SEM by Bronfenbrenner because it offers solvable solutions that the study findings indicated were challenges faced by the participants in getting timely and easy access to breast cancer screening services and addressing individual and environmental factors that could remedy these challenges. For instance, challenges on an interpersonal or microsystem level, such as personal or spiritual beliefs, can be linked to screening programs to meet the patient's needs and promote screening compliance.

The methodological implication is that the findings are relevant using a qualitative methodology and phenomenological approach to gain in-depth experiences of the participants in seeking breast cancer screening and preventive services. Stilwell and Harman (2021) suggested that qualitative research explores individuals' experiences and effectively identifies common concerns, preferences, and patient expectations about potential or received treatment. It can enhance clinicians' understanding of these factors, creating a healthcare approach that improves patients' experiences and outcomes.

Practice Recommendations

Collaboration with other research studies indicated that the unequal access to breast cancer screening and preventive services by the participants in this study is not an isolated problem but a multi-factorial issue that is impacting Black women in the US and worldwide. Access to breast cancer screening services has shown to be a challenge within which healthcare systems reside, utilization, and quality of care among Black patients and their providers. Thus, three practice recommendations are suggested to address this study's findings.

The first recommendation is to implement and promote diversity education in healthcare settings, empowering nurses to assess and educate their patients from an advocacy and cultural holistic approach. The second recommendation is for the government to allocate more scholarship funds to minority nurses to gain education in advanced nursing careers in which they can provide excellent quality care and more breast cancer screening facilities in underprivileged areas. The third recommendation is that insurance companies and the government should set up pay-for-performance pathways for healthcare clinicians and healthcare institutions with a mandate to create evidence-based protocols for breast cancer screening guidelines for all patients, including Black patients. It could boost a health delivery system where Black patients receive equal access to breast cancer screening like other races who are less marginalized.

Conclusion

I used a qualitative methodology and phenomenological approach to explore the experiences of Cameroonian women in seeking breast cancer screening and preventive services. The participants indicated they encountered multiple challenges in accessing timely breast cancer screening services. Many of the participants felt they ended up having breast cancer because they experienced the following issues: (a) accessibility to breast screening, (b) affordability for breast cancer screening services, (c) availability to address breast screening services, (d) acceptability to cope with and address screening services, and (e) awareness to address breast screening services. I suggested these recommendations, such as creating an equal environment that offers equal access to breast cancer screening to Black patients, employing and educating more Black nurses to meet the demand of Black patients in healthcare settings, and implementing a payment system that is affordable to get breast cancer screening promptly.

References

Adams, I., Christopher, J., Williams, K. B., & Sheppard, V. B. (2015). What Black women know and want to know about counseling and testing for BRCA1/2. *Journal of Cancer Education*, *30*(2), 344–352. https://doi.org/10.1007/s13187-014-0740-9

Adegboyega, A., Wiggins, A. T., Obielodan, O., Dignan, M., & Schoenberg, N. (2022). Beliefs associated with cancer screening behaviors among African Americans and sub-Saharan African immigrant adults: A cross-sectional study. *BMC Public Health*, *22*(1), 1–12. https://doi.org/10.1186/s12889-022-14591-x

Adekeye, O. A., Adesuyi, B. F., & Takon, J. G. (2018). Barriers to healthcare among African immigrants in Georgia, USA. *Journal of Immigrant Minority Health, 20*(1), 188-193. https://doi.org/10.1007/s10903-017-0549-9

Adler, R. H. (2022). Trustworthiness in qualitative research. *Journal of Human Lactation*, *38*(4), 598–602. https://doi.org/10.1177/08903344221116620

Adu, J., & Oudshoorn, A. (2020). The deinstitutionalization of psychiatric hospitals in Ghana: An application of Bronfenbrenner's social-ecological model. *Issues in Mental Health Nursing, 41*(4), 306-314. https://doi.org/10.1080/01612840.2019.1666327

Akinyemiju, T., Ogunsina, K., Gupta, A., Liu, I., Braithwaite, D., Hiatt, A. R. (2022). A social-ecological framework from cancer prevention in low and middle-income countries. *Front Public Health, 10*(1), 2296-2565.

https://doi.org/10.3389/fpubh.2022.884678

Albeshan, M. S., Hossain, Z. S., Mackey, D. M., & Brennan, C. P. (2020). Can breast self-examination and clinical breast examination along with increasing breast awareness facilitate earlier detection of breast cancer in population with advance stages at diagnosis. *Clinical Breast Cancer*, *20*(3), 194-200. https://doi.org/10.1016/j.clbc.2020.20.001

Aleshire, M. E., Adegboyega, A., Escontrías, O. A., Edward, J., & Hatcher, J. (2021). Access to care as a barrier to mammography for Black women. *Policy, Politics, & Nursing Practice*, *22*(1), 28-40. http://dx.doi.org/10.1177/1527154420965537

Alsrayheen, E., Aldiabat, k., & Aquino-Russell, C. (2022). The lived experiences of Middle Eastern immigrant women during their cancer survivorship journey: A phenomenological study. *The Qualitative Report*, *27*(8), 1660-1688.https://doi.org/10.46743/2160-3715/2022.5513

American Cancer Society. (2017). *Breast cancer facts & figures 2017-2018*. https://www.cancer.org/content /dam/cancer-org/research/cancer-facts-and-statistics/breast-cancer-facts-and-fugures/breasr-cancer-facts-fifures-2017-2018.pdf

Bamidele, O., Ali, N., Papadopoulos, C., & Randhawa, G. (2017). Exploring factors contributing to low uptake of the NHS breast cancer screening program among black African women in the UK. *Diversity and Equality in Health and Care,* *14*(4), 212-219. https://doi.10.21767/2049-5471.1000113

Barrow, C.J., & Pollack, C. E. (2019). Applying an access framework to studying equity at the intersection of housing and health. *A Journal of Policy Development and Research*, *24*(2), 109-116

Black, E., & Richmond, R. (2019). Improving early detection of breast cancer in sub-Saharan Africa: why mammography may not be the way forward. *Globalization and Health*, *15*(1), 1744-8603. https://doi.org/10.1186/s12992-018-0446-6

Bercaw, E. L., Levinson, A., Fletcher, D., Shuman, B. S., Hughes, S., & Peddada, S. (2022). Assessing Disparities in Medicaid home-and community-based services: A systematic review. *Journal of Aging & Social Policy, 35*(3), 0895-9420. https://doi.org/10.1080/08959420.2022.2081424

Berndt, E. A. (2020). Sampling methods. *Journal of Human Lactation, 36*(2), 0890-3344. https://doi.org/10.1177/0890334420906850

Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.

Braun V., Clarke V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brinton, L. A., Awuah, B., Nat Clegg-Lamptey, J., Wiafe-Addai, B., Ansong, D., Nyarko, K. M…, & Figuero, J. D. (2017). Design considerations for identifying breast cancer risk factors in a population-based study in Africa. *International Journal Cancer, 140*(2), pp 2667-2677. https://doi.org/10.1002/ijc.30688

Bronfenbrenner, U. (1994). Ecology models of human development. In *International Encyclopedia of Education , 3(*2), 37-43. *Elsevier*

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychology, 32*(7), 513-531. https://doi.org/10.1037/0003-066X.32.7.513

Brown, C. (2022). The evidence-based practitioner: Applying research to meet client needs (2nd ed.). *F.A. Davis*.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661. https://doi.org/10.1177/1744987120927206

Centers for Disease Control and Prevention. (2022a). *What is breast cancer?* https://www.cdc.gov/cancer/breast/basic_info/screening.htm

Centers for Disease Control and Prevention. (2022b). Social-ecological model: A framework for prevention. https://www.cdc.gov/violenceprevention/publichealthissue/socialecologicalmodel.html

Centers for Disease Control and Prevention. (2020). Health people 2020 https://www.cdc.gov/nchs/healthy_people/hp2020.htm

Centers for Disease Control and Prevention. (2018). *What is breast cancer?* https://www.cdc.gov/cancer/breast/basic_info/what-is-breast-cancer.htm

Collingridge, D. S., & Gantt, E. E. (2008). The quality of qualitative research. *American Journal of Medical Quality*, *23*(5), 389–395.

https://doi.org/10.1177/1062860608320646

Cochran, L. A., McDonald, C. N., Prunkl, L., Vinella-Brusher, E., Wang, J., Wolfe, M. (2022). Transportation barriers to care among frequent health care users during COVID pandemic. *BMC Public Health*, *22*(1), 1471-2458. https://doi.org/10.1186/s12889-022-14149-x

Conley, C. C., Kasting, L.M., Augusto, M B., Garcia, D. J., Cragun, D., Gonzalez, D. B…, Vadaparampil, T. S. (2020a). Impact of genetic testing on risk-management behavior of black breast cancer survivors: A longitudinal, observational study. *Anals Surgical Oncology, 27*(5),1659-1670. https://doi.org/10.1245/s10434-019-07982-9

Conley, C. C., Ketcher, D., Reblin, M., Kasting, L. M., Cragun, D., Kim., j…, Vadaparampil, T. S. (2020b). The bifg reveal: Family disclosure patterns of BRCA genetic results among young women with invasive breast cancer, *Journal of Genetic Counseling, 29*(3),410-422. https://doi.org/10.1002/jgc4.1196

Collin, J. L., Gaglioti, H. A., Beyer, M. K., Zhou, Y., Moore, A. M., Nash, R.., McCullough, E. L. (2021). Neighborhood-level redlining and lending bias are associated with breast cancer mortality in a large diverse metropolitan area. *Cancer Epidemiology Biomarkers & Prevention*, *30*(1), 53-60. https://doi.org/10.1158/1055-9965.EPI-20-1038

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, quantitative, and mixed methods (5th ed.). *SAGE*, 34

Coleman, P. (2021). Validity and reliability within qualitative research in the caring sciences. *International Journal of Caring Sciences, 14*(3), 2041-2045.

Coughlin, S. S. (2019). Epidemiology of breast cancer in women. In: Ahmad, A. (9eds) *Breast Cancer Metastasis and Drug Resistance in Experimental Medicine and Biology, 1152. Springer, Cham*. https://doi.org/10.1007/978-3-030-20301-6_2

Cry, E. M., Etchin, G. A., Guthrie, J. B & Benneyan, C. J. (2019). Access to specialty healthcare in urban versus rural US population: a systemic literature review. *BMC Health Services Research 19*, 974. https://doi.org/10.1186/s12913-019-4815-5

Cu, A., Meister, S., Lefebvre, B., & Ridde, V. (2021). Assessing healthcare access using Levesque's conceptual framework-a scoping review. *International Journal for Equity in Health. 20*(1), 2-14. https://doi.org/10.1186/s12939-021-01416-3

Daniel, K. (2019). Using the TACT framework to learn the principles of rigour in qualitative research. *Electronic Journal of Business Research Methods, 17*(3), 118-129. https://doi.org/10.34190/JBRM.17.3.002

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research Nursing, 25*(5), 443-544. https://doi.org/10.1177/1744987119880234

Ekici, S., & Jawzal, H. (2020). Breast cancer diagnosis using thermography and convolutional neural networks. *Medical Hypotheses, 137.* https://doi.org/10.1016/j.mehy.2019.109542

Fatima, N., Liu, L., Hong, S., & Ahmed, H. (2020). Prediction of breast cancer, comparative review of machine learning techniques, and their analysis. IEEE Access, 8, 150360-150376. https://doi.org/10.1109/ACCESS.2020.3016715

Frechette, J., Bitzas, V., M., Aubry, M., Kilpatrick, K., & Lavoie-Tremblay, M. (2020). Capturing live experience: Methodological considerations for interpretive phenomenological inquiry. *International Journal of Qualitative Methods.* https://doi.org/10.1177/1609406920907254

Gersten, T., & Stump-Surliff, K. (2019). Breast cancer: Introduction. In University of Rochester. *Medical Center Health Encyclopedia*. Rochester.edu/encyclopedia/content.aspx?contenttypeid=85&contented=p09506

Giaquinto, N. A., Miller, D. K., Tossas, Y. K., Winn, A. R., Jemal, A., & Siegel., L. R. (2022a). Cancer statistics for African American/Black people 2022. *A Cancer Journal for Clinicians, 72*(3), 202-220. https://doi.org/10.3322/caac.21718

Giaquinto, N. A., Sung, H., Miller, D. K., Kramer, L. J., Newman, A. L., Minihan, A…, & Siegel., L. R. (2022b). Cancer statistics, 2022. *A Cancer Journal for Clinicians, 72*(6), 524-541. https://doi.org/10.3322/caac.21718

Gill, L. S. (2020). Qualitative sampling methods. *Journal of Human Lactation, 36, (*4) 0890-3344. https://doi.org/10.1177/0890334420949218

Ginsburg, O., Yip, C-H., Brooks, A., Cabanes, A., Caleffi, M., Yataco, J. A. D…, Anderson, O. B. (2020). Breast cancer early detection: A phase approach to implementation. *Cancer, 126*, 2325-2493. https://doi.org/10.1002/cncr.32887

Gupta, P., & Garg, S. (2020). Breast cancer prediction using varying parameters of machine learning models. *Procedia Computer Science, 171*, 593-601 https://doi.org/10.1016/j.procs.2020.04.064

Gray, J. R., Grove, S. K., & Sutherland, S. (2017). Burns and Grove's the practice of nursing research: Appraisal, synthesis, and generation of evidence. *Saunders Elsevier*

Grob, R., Darien, G., & Meyers, D. (2019). Why physicians should trust in patients. *JAMA, 321*(14), 1347-1348. https://doi.org/10.1001/jama. 2019.1500

Haenn, N., & Wilk, R. R. (2006). The environment in anthropology. A reader in ecology, culture, and sustainable living. *New York University Press*

Hamilton, B. J., Abiri, N. A., Nicolas, A. C., Gyan, K., Chandler, D. R., Worthy, C. V., & Grant, J. E. (2023). African American women breast cancer survivor: Coping with the covid-19 pandemic. *Journal of Cancer Education, 8*, 1539-1547. https://doi.org/10.1007/s13187-023-02296-7

Henderson, V., Tossas-Milligan, K., Martinez, E., Williams, B., Torres, P., Mannan, N., & Watson, K. S. (2020). Implementation of an integrated framework for breast cancer screening and navigation program for women from under resourced communities. *Cancer, 126*(10), 2481-2493. https://doi.org/10.1002/cncr.32843

Hennink, M. M., Kaiser, N. B., & Weber, B. M. (2022). Sample size for saturation in qualitative research: A systemic review of empirical tests. *Social Science & Medicine, 292*, 114523. https://doi.org/10.1016/j.socscimed.2021.114523

Hennink, M. M., Kaiser, N. B., & Weber, B. M. (2019). What influence saturation? Estimation sample size in focus group research. *Qualitative Health Research, 29*(10), 1483-1496. https://doi.org/10.1177/1049732318821692

Hilty, D. M., Gentry, M. T., McKean, A. J., Cowan, K. E., Lim, R. F., & Lu, F. G. (2020). Telehealth for rural diverse populations: telebehavioral and cultural competencies, clinical outcomes and administrative approaches. *MHealth*, *6*, 20–20. https://doi.org/10.21037/MHEALTH.2019.10.04

Hoppe, E. J., Hussain, L. R., Grannan, K., Dunki-Jacobs, E. M., Lee, D. J., & Wexelman, B. A. (2019). Racial disparities in breast cancer persist despite early detection: analysis of the treatment of stage 1 breast cancer and effect of insurance status on disparities. *Breast Cancer Research and Treatment*, *173*(3), 597–602. https://doi.10.1007/s10549-018-5036-z.

Hoseini-Esfidarjani, S. S., Negarandeh, R., Delavar, F., & Janani, L. (2021). Psychometric evaluation of the perceived access to health care questionnaire. *BMC Health Services Research*, *21*(1), 1-10. https://doi.org/10.1186/s12913-021-06655-2.

Hsiang, W. R., Lukasiewicz, A., Gentry, M., Chang-Yeong, K., Leslie, P. M.,Pelker, R…, Wiznia, H. D. (2019). Medicaid patients have greater difficulty scheduling health care appointments compared with private insurance patients: A met-analysis. *The Journal of Health Care Organization, 56*, 1-9. https://doi.org/10.1177/0046958019838118

Iddrisu, M., Aziato, L., & Dedey, F. (2020). Psychological and physical effects of breast cancer diagnosis and treatment on young Ghanian women: A qualitative study. *BMC Psychiatry*, *20*(1), 1-9. https://doi.org/10.1186/s12888-020-02760-4

Jain, N. (2021). Survey versus interviews: Comparing data collection tools for exploratory research. *The Qualitative Research*, *26*(2), 2-11. https://doi.org/10.46743/2160-3715/2021.4492

Jedlickkova, L., Muller, M., Halova, D., & Cserge, T. (2022). Combining interpretative phenomenology analysis and existtential hermeneutic phenomenology to reveal critical moments of managerail lived expereince: a methodological guide. *Qualitative Research in Organizations and Management*, *17*(1), 84-102. https://doi.org/10.1108/QROM-09-2020-2024

Jones, T., Howard, H., Freeman-Costin., K., Creighton., A., Wisdom-Chambers, K., & Underhil-Blazey., M. (2021). Knowledge and perception of BRCA1/2 genetic testing and needs of diverse women with a personal or family history of breast cancer in South Florida. *Journal of Community Genetics*, *12*(3), 415-429.https://doi.org/10.1007/s12687-021-00507-6

Kagedan, D J., Edge, S. B., & Takabe, K. (2021). Behind the clock: elucidating factors contributing to longer clinic appointment duration and patient wait time, *BMC Health Services Research*, *21*(87), 1472-6963.

https://doi.org/10.1186/s12913-021-06079-y

Kang, C., Tomkow, L., & Farrington, R. (2019). Access to primary health care for asylum seekers and refugees: A qualitative study of service user experiences in the UK. *British Journal of General Practice, 69*(685), 537-545. https://doi.org/10.3399/bjgp19X701309

Kilanowski, J. F. (2017). Breadth of the socio-ecological model. *Journal of Agromedicine, 22*(4), 295-297. https://doi.org/10.1080/1059924X.2017.1358971

Kilic, A., Tastan, S., Guvenc, G., & Akyuz, A. (2019). Breast and cervical cancer screening for women with physical disabilities: A qualitative study of experiences and barriers. *Journal of Advance Nursing, 75*(9), 0309-2402. https://doi.org/10.1111/jan.14048

Kim, H., Sefcik, S. J., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing Health, 40*(1), 23-42. https://doi.org/10.1002/nur.21768

Khullar, D. (2019) Building trust in health care-why, where, and how. *JAMA, 322* 507-509. https://doi.org/10.1001/jama. 2019.4892

Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *The European Journal of General Practice, 24*(1), 120–124. https://doi.org/10.1080/13814788.2017.1375092

Lavee, E., & Itzchakov, G. (2023). Good listening: A key element in establishing quality in qualitative research. Qualitative Research, 23(3), 614-631. https://doi.org/10.1177/14687941211039402.

Li, C., Liu, Y., Xue, D., & Chan, H. W. C. (2020). Effects of nurse-led intervention on early detection of cancer: A systemic review and meta-analysis. *International Journal of Nursing Studies, 110*. https://doi.org/10.1016/j.ijnurstu.2020.103684

Lincoln, Y., & Guba, E. (1985). Naturalistic inquiry. Sage Publication.

Liu, D., Schuchard, H., Burston, B., Yamashita, T., & Albert, S. (2021). Interventions to reduce healthcare disparities in cancer screening among minority adults: A systemic review. *Journal of Racial and Ethnic Health Disparities, Springer*.

Lovejoy, A. L., Shriver, D. C., Haricharan, S., & Ellsworth, E. R. (2023). Survival disparities in US black compared to white women with hormone receptor positive-HER2 negative breast cancer. *International Journal of Environmental Research and Public Health, 20*(4), 2903. https://doi.org/10.3390/ijerph20042903

Jain, N. (2021). Survey versus interviews: Comparing data collection tools for exploratory research. *The Qualitative Research, 26*(2), 2-11. https://doi.org/10.46743/2160-3715/2021.4492

Jedlickkova, L., Muller, M., Halova, D., & Cserge, T. (2022). Combining interpretative phenomenology analysis and existtential hermeneutic phenomenology to reveal critical moments of managerail lived expereince: a methodological guide. *Qualitative Research in Organizations and Management, 17*(1), 84-102. https://doi.org/10.1108/QROM-09-2020-2024

Makel, C. M., Meyer, M. S., Simonsen, M. A., Roberts, A. M., & Plucker, J. A. (2022). Replication is relevant to qualitative research. *Educational Research and Evaluation: An International Journal on Theory and Practice, 27*(1-2), 215-219. https://doi.org/10.1080/13803611.2021.2022310

Makurumidze, G., Lu, C., Babagbemi, K. (2022). Addressing disparities in breast cancer screening: A review. *Applied Radiology, 51*(6), 24-28. https://doi.org/10.37549/ar2849

Mani, V., Banaag, A., Munigala, S., Umoh, A., Schoenfeld, J. A., Coles, L. C…, Koehlmoos, P. T. (2023). Trends in breast cancer screening during Covid-19 pandemic within a universally insured health system in the United Staes, 2017-2022. *Cancer Medicine ,12*(18), 2045-7634. https://doi.org/10.1002/cam4.6487

Marcu, A., Marke, A., Ames, J., Whitaker, L. K., & Ream, E. (2022). Adapting a breast cancer early presentation intervention for black women: A focus group study with women of black African and black Caribbean descent in the United Kingdom. *European Journal of Cancer Care, 31*(6), e13652. https://doi.org/10.1111/ecc.13652

Markey, C., Weiss, E. J., & Loehrer, P. A. (2022). Influence of race, insurance, and rurality on equity of breast cancer care. *Journal of Surgical Research, 271* 117-124. https://doi.org/10.1016/j.jss2021.09.042

Mascara, M., & Constantina, C. (2021). Global perception of women on breast cancer and barriers to screening. *Current Oncology Reports; 23*(7), 1523-3790.

https://doi.org/10.1007/s11912-021-01069-z

McGonagle, K. A., Bardwell, T., Flinchum, J., & Kavanagh, K. (2022). Perceived work ability: A constant comparative analysis of workers' perspectives. *Occupational Health Science 6*, 207-246. https://doi.org/10.1007/s41542-022-00116-w

McGrath, C., Palmgren, P. J., & Liljedahl, M. (2019). Twelve tips for conducting qualitative research interviews. *Medical Teacher*, *41*(9), 1002–1006. https://doi.org/10.1080/0142159X.2018.1497149

Medhanie, G. A., Fedewa, S.A., Adissu, H., DesSantis, C. E., Siegel, R. L., & Jemal. A. (2017). Cancer incidence profile in sub-Saharan African-born blacks in the United States: Similarities and differences with US-born non-Hispanic blacks. *Cancer, 123*(16), 3116-3124. https://doi.org/10.1002/cncr.30701

Meyer, K., & Willis, R. (2018). Looking back to move forward: The value of reflexive journaling for novice researchers. Journal of Gerontological Social Work, 62(5), 578-585. https://doi.org/10.1080/01634372.2018.1559906

Mitchell, E., Alese, B. O., Yates, C., Rivers, B., Blackstock, W., Newman…, Harris, E. A. (2022). Cancer healthcare disparities among African American in the United Staes. *Journal of the National Medical Association, 114*(3), 236-250. https://doi.org/10.1016/j.jnma.2022.01.004

Montoro, C. I., Alcaraz, M del C., Galvez-Sanchez, C. M. (2023). Experience and pain and unpleasantness during mammography screening: A cross-sectional study on the roles of emotional, cognitive, and personality factors. *Behavioral Science (2076-328X)*, *13*(5), 377. https://doi.org/10.3390/bs13050377

Morse, M. J. (2015). "Data were saturated…" Qualitative Health Research, 25(5), 587-588. https://doi.org/10.1177/1049732315576699

Motulsky, L. S. (2021). Is member checking the gold standard of quality in qualitative research? *Qualitative Psychology*, *8*(3), 389-406. https://doi.org/10.1037/qup0000215

Mwita, M. K. (2022). Strengths and weaknesses of qualitative research in social science. International Journal of Research in Business and Social Science, 11(6), 618-625. https://doi.org/10.20525/ijrbs.v11i6.1920

Myer, K., & Willis, R. (2018). Looking back to move forward: The value of reflexive journaling for novice researchers. *Journal of Gerontological Social Work*, *62*(5), 578-585. https://doi.org/10.1080/01634372.2018.1559906

Nassaji, H. (2020). Good qualitative research. *Language Teaching Research from SAGE Journals Premier, 24*(4), 1362-1688. https://doi.org/10.1177/1362168820941288

National Cancer Institute. (2020). Cancer stat facts: Female breast cancer. Surveillance, epidemiology, and end results cancer. https://www.Seer.concer.gov/statfacts/html/breast.html

2021 National Healthcare Quality and Disparities Report: Agency for Healthcare Research and Quality (US). (2021, December 1). *DISPARITIES IN*

HEALTHCARE. https://www.ncbi.nlm.nih.gov/books/NBK578532/

Neubauer, E. B., Witkop, T. C., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspective on Medicine Education*, 8, 90-97. https://doi.org/10.1007/s40037-019-0509-2

Newman, A. L., & Kaljee, M. L. (2017). Health disparities and triple-negative breast cancer in African American women: A review. *Global Health Initiative*. *JAMA Surg*, *152*(5), 485-493. https://doi.org/10.1001/jamsurg.2017.0005

Ngan, T. T., Nguyen, N. T. Q., Van Minh, H., Donnelly, M., & O'Neil, C. (2020). Effectiveness of clinical breast examination as a "stand-alone" screening modality: an overview of systematic reviews. *BMC Cancer, 20*(1), 1471-2407. https://doi.org/10.1186/s12885-020-07521-w

Nyirenda, L., Kumar, M. B., Theobald, S., Sarker, M., Simwinga, M., Kumwenda, M…, Taegtmeyer, M. (2020). Using research network to generate trustworthy qualitative public health research findings from multiple contexts, *BMC Medical Research Methodology, 20*(1), 1-10. https://doi.org/10.1186/s12874-019-0895-5

O'Connor, C., & Joffe, H. (2020). Intercoder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods, 19*: 1-3. https://doi.org/10.1177/1609406919899229

Obikunle, F. A., & Ade-Oshifogun, B. (2022). Perspectives of African American women about barriers to breast cancer prevention and screening practices: A qualitative study. *African Journal of Reproductive Health, 26*(7), 22-28.

https://doi.org/10.29063/ajrh2022/v26i7.3

O’Hara, J., McPhee, C., Dodson, S., Cooper, A., Wildey, C., Hawkins, M…, Beauchamp, A. (2018). Barrires to breast cancer screening among diverse cultural groups in Melbourne, Australia. *International Environmental Research and Public Health, 15*(8), 1677. https://doi.org/10.3390/ijerph15081677

O’Kane, M., Agrawal, S., Binder, L., Dzau, V., Gandhi, K. T., Harrinton, R…, Schummers. D. (2021). An equity agenda for the field of health care quality improvement. *NAM Perspectives, 202*. https://doi.org/10.31478/202109b

Oluyede, L., Cochran, L. A., Wolfe, M., Prunkl, L., Cochran, L. A., & McDonald, C. N. (2022). Transportation barriers to health care frequent health care during COVI-19 pandemic. Perspectives of care coordinator. *Transportation Research Part A, 159*, 157-168. https://doi.org/10.1016/j.tra.2022.03.010

Omenka, O., Watson, D., & Hendrie, C. H. (2020). Understanding the healthcare experiences and needs of African immigrants in the United States: a scoping review. *BMC Public Health, 20*(1), 1-13. https://doi.org/10.1186/s12889-019-8127-9

Orji, C. C., Kanu, C., Adelodun, I. A., & Brown, M. C. (2020). Factors that influence mammography use for breast cancer screening among African American women. *Journal of the National Medical Association, 112*(6), 578-592. https://doi.org/10.1016/j.jnma.2020.05.004

Otieno, O. P, Wambiya, E. O. A., Mohamed, S. M., Mutua, K. M., Kibe, P. M., Mwangi, B., & Donfouet, H. P. P. (2020). Access to primary healthcare services and associated factors in urban slums in Nairobi-Kenya. *BMC Public Health.* https://doi.org/10.1186/s12889-020-09106-5

Out, E. (2018). Geographical Access to healthcare services in Nigeria-A review. *International Journal of Integrative Humanism*, *10*(1), 2026-6286.

Penner, A. L, Dovidio, F. J., Gonzalez, R., Albrecht, L. T., Chapman, R., Foster, T…, Eggly, S. (2016). The effects of oncologist implicit racial bias in racially discordant oncology interactions. *Journal of Clinical Oncology, 34*(24), 2874-2880. https://doi.org/10.1200/JCO.2015.66.3658

Ponce-Chazarri, L., Ponce-Blandón, J. A., Immordino, P., Giordano, A., & Morales, F. (2023). Barriers to breast cancer-screening adherence in vulnerable populations. *Cancers*, *15*(3). https://doi.org/10.3390/CANCERS15030604

Poux, S. (2017). The social-ecological model offers new approach to public health. The Borgen Project. https://borgenproject.org/social-ecological-model.

Pugh, A., Castleden, H., Giesbrecht, M., Davison, C., & Crooks, V. (2019). Awareness as a dimension of health care access: exploring the case of rural palliative care provision in Canada. *Journal of health services research & policy*, *24*(2), 108-115. https://doi.org/10.1177/1355819619829782.

Qaseem, A., Lin, J. S., Mustafa, R. A., Horwitch, C. A., Wilt,.T. J., Forciea, M. A…, Vijan, S. (2019). Screening for breast cancer in Average-risk women: A guidance statement from the American college of physicians. *Annals of Internal Medicine,* *170*(8), 547-560.https://doi.org/10.7326/M18-2147

Ravitch, S. M., & Carl, N. M. (2021). *Qualitative research: Bridging the conceptual, theoretical, and methodological.* Sage Publications

Reid, S., Cadiz, S., & Pal, T. (2020). Disparities in Genetic Testing and Care Among Black Women with Hereditary Breast Cancer. *Current Breast Cancer Reports*, *12*(3), 125–131. https://doi.org/10.1007/s12609-020-00364-1

Republic of Cameroon Ministry of Public Health. (2020). National strategic plan for prevention and cancer control. https://www.iccp-portal.org/system/files/plans/FINAL%20COPY%20OF%20PSNPLCa%20ENGLISH.pdf

Retrouvey, H., Solaja, O., Gagliardi, R. A., Webster, F., & Zhong, T. (2019). Barriers of access to breast reconstruction: A systemic review. *Journal of the American Society of Plastic Surgeons, 143*(3), 465e-476e. https://doi.org/10.1097/PRS.0000000000005313

Rose, J., Oliver, Y., Sage, P., Dong, W., Koroukian, S. M., & Koopman Gonzalez, S. (2022). Factors affecting timely breast cancer treatment among black women in a high-risk urban community: A qualitative study. *BMC Women's Health*, *22*. https://doi.org/10.1186/s12905-022-01938-0

Sage, S. K., Hawkins-Taylor, C., Crockett, R. A., & Balls-Berry, J. E. (2020). “Girl, just pray …”: Factors that influence breast and cervical cancer screening among black women in Rochester, MN. *Journal of the National Medical Association*, *112*(5), 454–467. https://doi.org/10.1016/J.JNMA.2019.02.006

Salmon, J Hesketh, K. D., Arundell, L., Downing, L. K., & Biddle, S. J. H. (2020). Changing behavior using ecological model. The handbook of behavior change. *Cambridge University Press*.https://doi.org/10.1017/9781108677318.017.

Saurman, E. (2015). Improving Access: Modifying Penchansky and Thomas's Theory Access. *Journal of Health Services Research & Policy*, *21*(1), 36-39. https://doi.org/10.1177/1355819615600001

Schwartz, C., Chukwudozie, I. B., Tejeda, S., Vijayasiri, G., Abraham, I., Remo, M. H., Shah, H., Rojas, M., Carillo, A., Moreno, L., Warnecke, R. B., & Hoskins, K. (2021). Association of Population Screening for Breast Cancer Risk With Use of Mammography Among Women in Medically Underserved Racial and Ethnic Minority Groups. *JAMA Network Open*, *4*(9), e2123751. https://doi.org/10.1001/jamanetworkopen.2021.23751

Seifu, W., & Mekonen, L. (2021). Breast self-examination practice among women in Africa: a systemic review and meta-analysis. *Archives of Public Health*, *79*(1), 2049-3258. https://doi.org/10.1186/s13690-021-00671-8

Shah, A. T., & Guraya, S. S. (2017). Breast cancer screening programs: Review of merits, demerits, and recent recommendations practice across the world. *The Journal of Microscopy & Ultrastructure*, *5*(2), 59-69. https://doi.org/10.1016/j.jmau.2016.10.002

Sharifikia, I., Rohani, C., Estebsari, F., Matbouei, M., Salmani, F., & Hossein-Nejad, A.

(2019). Health belief model-based intervention on women's knowledge and perceived beliefs about warning signs of cancer. *Asia-Pacific journal of oncology nursing*, *6*(4), 431-439. https://doi.org/10.4103/apjon-32-19

Shorey, S., & Ng, D. E. (2022). Examining characteristics of descriptive phenomenological nursing studies: A scope review. Journal of Advanced Nursing, 78(7), 1968-1979. https://doi.org/10.1111/jan.15244

Shufutinsky, A. (2020). Employing use of self for transparency, rigor, trustworthiness, and credibility in qualitative organizational research methods. *Organizational Development Review, 52*(1), 50-58.

Siddiq, H., Alemi, Q., Mentes, J., Pavlish, C., & Lee, E. (2020). Prevention cancer screening among resettled refugee women from Muslim-majority countries: A systemic review. *Journal of Immigrant and Minority Health, 22*(5), 1067-1093. https://doi.org/10.1007/s109-0-019-00967-6

Simo, T. R., Baiguerel, M. E., Kamdje, N. H. A., Etet, S. F. P., Ahmadou, M., Nangue, C., & Telefo, B. P. (2021). Awareness of breast cancer screening among the medical and general population of the Northwest region of Cameroon. *International Journal of Breast Cancer*. *2021*. https://doi.org/10.1155/2021/6663195.

Skrobanski, H., Ream, E., Poole, K., & Whitaker, L. K. (2019). Understanding primary care nurses' contribution to cancer diagnosis: A systemic review. *European Journal of Oncology Nursing, 41*, 149-164.

https://doi.org/10.1016/j.ejon.2019.06.007

Smith, R. A., Andrews, K. S., Brooks, D., Fedewa, S. A., Manassaram-Baptiste, D., Saslow, D., & Wender, R. C. (2019). Cancer screening in the United States, 2019: A review of current American Cancer Society guidelines and current issues in cancer screening. *CA: A Cancer Journal for Clinicians*, *69*(3), 184–210. https://doi.org/10.3322/CAAC.21557

Stahl, N. A., & King, J. R. (2020). Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, *44*(1), 26-28. https://www.proquest.com/docview/2467348904?accountid=14872

Stilwell, P., & Harman, K. (2021). Phenomenological research needs to be renewed: Time to integrate enactivism as a flexible resource. *International Journal of Methods*, *20*. https://doi.org/10.1177/1609406921995299

Stringer-Reasor, E. M., Elkhanany, A., Khoury, K., Simon, M. A., & Newman, L. A. (2021). Disparities in breast cancer associated with African American identity. *American Society of Clinical Oncology Educational Book, 4(*1), 29-46.

Sturz, L. J., & Boughey, C. J. (2023). Lasting impacts of the COVID-19 pandemic on breast cancer diagnosis and treatment in the United Sates. Surg Oncol Clin N Am, 32(4), 811-819. https://doi.org/10.1016/j.soc.2023.05.010

Soyer, G. F. (2019). The ecology of human development by Urie Bronfenbrenner, *Journal and Values in Education*, *2*(2), 77-80.

Tsapatsaris, A., Babagbemi, K., & Reichman, M. B. (2022). Barriers to breast cancer screening are worsened amidst COVID-19 pandemic: A review. *Clinical Imaging*, *82*, 224. https://doi.org/10.1016/J.CLINIMAG.2021.11.025.

Williams, M. W., & Fu, R. M. (2023). Understanding breast cancer disparities affecting black women: Obtaining diverse perspectives through focus groups comprised of patient, providers, and other. *Journal of Community Health*. https://doi.org/10.1007/s10900-023-01227-3

Xu, W., & Zammit, K. (2020). Applying thematic analysis to education: A gybrid approach to interpreting data in practitioner research. *International Journal of Qulaitative Methods, 19*: 1-19. https://doi.org/10.1177/1609406920918810

U.S. Preventative Services Task Force. (2016). *Breast cancer: Screening*. https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening

Vijayaraghavan, R. G., & Guembou, M. I. (2023). The current state of timeliness in the breast cancer diagnosis journey: Abnormal screening to biopsy. *Seminar in Ultrasound, CT and MRI, 44*(1), 56-61. https://doi.org/10.1053/j.sult.2022.11.004

Vo, B. J., Gillman, A., Mitchell, K., & Nolan., S. T. (2021). Health disparities: Impact of health disparities and treatment decision-making biases on cancer adverse effects among Black cancer survivors. *Journal of Oncology Nursing, 25*(5), 17-24. https://doi.org/10.1188/21.CJON.S1.17-24

Walsh, M. S., Zabor, C. E., Stempel, M., Morrow, M., & Gemignani, L. M. (2019). Dose race predict survival for women with invasive breast cancer? *Cancer*. https://doi.org/10.1002/cncr.32296

Yedjou, C. G., Sims, J. N., Miele, L., Noubissi, F. K., Lowe, L., Fonseca, D. D., Aló, R. A., Payton, M., & Tchounwou, P. B. (2019b). Health and racial disparity in breast cancer. In A. Ahmad (Ed.), *Breast Cancer Metastasis and Drug Resistance* (pp. 31–49). Springer, Cham. https://doi.org/10.1007/978-3-030-20301-6_3

Yoda, S., & Theeke, A. L. (2022). A scope review of factor contributing to late-stage diagnosis of breast cancer in racial ethnic minority (African American and Hispanic) women. *SAGE OPEN*, *12*(4)

Zahnd, W. E., Murphy, C., Knoll, M., Benavidez, G. A., Day, K. R., Ranganathan, R., ... & Eberth, J. M. (2021). The intersection of rural residence and minority race/ethnicity in cancer disparities in the United States. *International journal of environmental research and public health*, *18*(4), 1384. https://doi.org/10.3390/ijerph18041384

Zeb, S. (2021). *6 Mammogram Myths*. https://www.hopkinsmedicine.org/health/conditions-and-diseases/breast-cancer/6-mammogram-myths

Appendix A: Recruitment Flyer

Interview study seeks Cameroon Females

There is a new study about Cameroonian women's experiences in seeking breast cancer screening and prevention services in the Mid-Atlantic region that could help health practitioners better understand and meet the needs of this population. For this study, you are invited to describe your experiences in seeking cancer screening and prevention services.

<u>About the study:</u>

- One 30-60 minute face-to-face or online interview via Zoom that will be audio recorded (no videorecording)
- To protect your privacy, the published study will not share any names or details that identify you.

Volunteers must meet these requirements:

- 18 years old or older
- Cameroon female of origin

This interview is part of the doctoral study for Cynthia Moore, a Ph.D. student at Walden University. Interviews will take place in September or in October 2023.

To confidentially volunteer, contact the researcher: Cynthia Moore

XXX@waldenu.edu

Appendix B: Interview Guide

I used one main question with 4-5 probing questions.

Research Question: What are the experiences of Cameroonian women in seeking breast cancer screening and preventive services?

Probing Questions: (Bases on the participants comments), For example

1. You mention XXX...can you tell me more.
2. Tell me about your experiences with scheduling your mammography.
3. Tell me about your experiences in discussing mammography screening with your healthcare provider.
4. Please tell me how you pay and the means of transportation for mammography.

Appendix C: Demographic and Screening Questions

Screening Questions

1. Are you 18 years old and above?
2. Are you a Cameroon female of origin?

Demographic Questions

1. What is your age?
2. What is your education level?
3. What is your income level?
4. What is your employment status?
5. What is your marital status?